

**OCCUPATIONAL PENSION SCHEMES AND
THEIR RELEVANCE FOR THE
EMPLOYMENT RELATIONSHIP IN GERMANY**

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**Occupational Pension Schemes and their Relevance for the
Employment Relationship in Germany**

A Case Study Approach in the German Financial Services Sector

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ABSTRACT

Title: Occupational Pension Schemes and their Relevance for the Employment Relationship in Germany

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Due to employees' reduced entitlements to the German statutory state pension on the one hand, and the challenge to employers of a skilled worker shortage on the other, employers' contributions towards occupational pension schemes (OPS) might be an effective human-resources management tool. Thus, the overarching research question is: What is the relevance of OPS for the employment relationship in Germany? Five sub-research questions address the role of OPS in recruitment and retention management, organisational commitment, the potential differences between women and men and between young and old employees and the employees' psychological contract. The empirical study is a single case study in the financial-services sector.

Key findings: OPS are of more relevance for retaining employees than for recruiting them. Their role differs significantly between employees with different generations of the OPS and, therefore, different pension entitlements. Only minor differences can be found between women and men and between younger and older employees. Satisfaction with the occupational pension scheme has no significant impact on organisational commitment. The majority of employees perceived psychological contract fulfilment with respect to the OPS.

The contribution to theory is the closure of five research gaps. As far as is known, this is the first study in Germany that analyses the role of OPS in a specified context and from multifaceted viewpoints (recruitment/retention, quantitative/qualitative, men/women, age groups).

The contribution to practice comprises the provision of a transferable analysis blueprint of the role of OPS in the employment relationship and the provision of recommendations that relate, among others, to communication and information aspects, cost-benefit calculations and the usage of additional employer contributions as a possible selective reward element.

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This thesis is dedicated to my deceased parents. I owe them very much.

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LIST OF ABBREVIATIONS

AC	Affective Commitment
BetrAVG	Betriebsrentengesetz (= German Occupational Retirement Provision Act)
CC	Continuance Commitment
CDC	Collective Defined Contribution
CFA	Confirmatory Factor Analysis
DB	Defined benefit
DBA	Doctor of Business Administration
HR	Human Resources
MANOVA	Multivariate analysis of variance
MANCOVA	Multivariate analysis of covariance
n	Number
OCS-Q	<u>O</u> rganisational <u>C</u> ommitment <u>S</u> cale used in the <u>Q</u> uestionnaire
OECD	Organisation for Economic Co-operation and Development
OPS	Occupational Pension Scheme(s)
PhD	Doctor of Philosophy
NC	Normative Commitment
RQ	Research Question
VBL	Versorgungsanstalt des Bundes und der Länder (= Pension Institution of the Federal Republic and the Federal States in Germany)

Occupational Pension Schemes and their Relevance for the Employment Relationship in Germany

1. Introduction

1.1. Occupational pension schemes: more important than ever?

Germany has faced several momentous pension reforms. The most recent reform came into force on January 1st 2018. This major reform was directed towards occupational pension schemes (see Chapter 1.2). A real paradigm shift, however, took place in 2000/2001. Whereas, in former times, the statutory state pension aimed to guarantee retirees a retirement income that was nearly as high as their last wage or salary, the pension reform in 2000/2001 revealed that the statutory state pension would have to be complemented by other forms of old-age provision (Dünn 2017). The fact that the statutory state pension is a pay-as-you-go system implies that it is directly affected by demographic changes. Increasing longevity, in combination with decreasing birth rates, means that retirees make up an increasing proportion of the entire German population (Börsch-Supan and Wilke 2003). Thus, the German government realised that, in the long run, only strongly reduced entitlements to statutory pensions could be financed. As a consequence, it tried to offset the necessary cuts to the statutory state pension, which is the first pillar of the German pension system, by strengthening the second and third pillars. The second pillar is the occupational pension scheme and the third pillar is the voluntary personal pension (Doetsch et al. 2013). Data from the Organisation for Economic Co-operation and Development (OECD) support the view that it is of great importance not to rely on the German statutory state pension as a single source of retirement income. For example, in 2016, the gross pension replacement rate (= gross pension entitlement divided by gross pre-retirement earnings) in Germany was 38.2 %, one of the lowest rates in Europe (see Appendix 1, OECD, 2018). Other data seem alarming as well. The statutory state pension level, before tax, of a so-called standard retiree (with 45 years' contributions to the system, based on an

average income in relation to the average earning level before tax) is expected to decline from 50.5 % in 2008 to 44.5 % in 2030 (BMAS 2016a).

At first, the governmental efforts to strengthen the second and third pillars seemed to have positive effects. For example, in 2001, 48.7 % of employment relationships that were fully subject to social insurance were entitled to occupational pension schemes (the second pillar). In 2011, this percentage increased to 58.7 %. It reached its peak in 2012 at 59 %. However, the percentage then fell to 57.7 % in 2015 (BMAS 2016b). A stagnant dissemination after really high increases in rates in the years after 2001 is also observable with respect to the so-called Riester-pension, a subsidised form of private pension (the third pillar) introduced in 2001 (BMAS 2017b). This stagnation in the overall figures, accompanied by the fact that especially low-income earners and employees working in small and medium-sized companies did not benefit from the strengthening of the second and third pillars of old-age provision led to a further momentous pension reform in 2017 (Deutscher Bundestag 2017: 31). The elements of the “Betriebsrentenstärkungsgesetz” are described in further detail in Chapter 1.2.

Demographic changes have repercussions not only for pension systems, but for the labour market as well. It is getting more and more difficult for employers to recruit highly qualified employees and to retain them (Michaels et al. 2001, Schweitzer and Lyons 2008, Ballhausen et al. 2014). Therefore, employers are forced to reconsider their recruitment and retention management strategies by asking themselves what they can offer to (potential) employees so that they become the employer of choice. Against the background of an increasing need for employees to consider ways to compensate for the declining level of the statutory state pension, employers' contributions to an occupational pension scheme might be an attractive inducement to (prospective) employees. Then, from the employer's perspective, the provision of an occupational pension scheme might turn out to be an effective human resources management tool and an important element within the employment relationship.

According to Tetrick (2004), the employment relationship can be defined in a very general manner as an exchange between employer and employee or

group of employees. He adds that “understanding the employment relationship requires a multilevel approach. That is, the employment relationship is a function of organizational factors including Human Resource Management strategies [...], and individual factors including individually negotiated agreements, perceptions of promises made by the organization or its agents, and previous employment experiences” (Tetrick 2004: 313).

This leads to the focus of this professional doctoral thesis. The purpose of the study conducted for this thesis is to analyse and understand the role of occupational pension schemes in the employment relationship in Germany, especially with regard to an employee’s decision to accept a job offer and their intentions to stay (but not with regard to work outcomes). This is completed by using a mixed methods approach which is informed by a post-positivist stance. The empirical study is carried out as an in-depth single-case study in the financial services sector. The thesis is structured as follows: Chapter 1.2 provides more details of the characteristics and dissemination of occupational pension schemes in Germany. Chapter 2 contains the literature review. It comprises a review of the role of occupational pension schemes as a tool for human resources management and a review of the relevant literature regarding the two main theoretical constructs of this thesis: “organisational commitment” and “psychological contract”. In Chapter 3, the main research question and the four sub-questions are presented. This chapter also contains a detailed account of the methodology. In Chapter 4, an overview of the results of the empirical study is given. This is done separately for the quantitative part and for the qualitative part. Then, in Chapter 5, the results of both parts are brought together to answer the research question and its sub-questions. This chapter also contains a discussion of the findings. In the final chapter, Chapter 6, the conclusion and the implications for practice are outlined.

1.2. Occupational pension schemes in Germany: an overview

The German Occupational Retirement Provision Act (“Betriebsrentengesetz”, BetrAVG) defines occupational pension schemes as the pledges of old-age provision, survivors’ benefits or disabled benefits that an employer makes to his employees because of the employment relationship (§ 1 BetrAVG). In

Germany, occupational pension schemes can take a variety of forms. The three main distinguishing criteria (Doetsch 2011) are: **first**, the method of implementing occupational pension schemes, particularly the vehicle or type of intermediate provider (1. book reserve = “Direktzusage”, 2. support funds = “Unterstützungskasse”, 3. direct insurance = “Direktversicherung”, 4. pension institutions = “Pensionskasse” and 5. pension funds = “Pensionsfonds”); **second**, the types of occupational pension scheme with respect to the pledges made (1. defined benefit, 2. benefit promise derived from contributions, 3. defined contribution with guaranteed minimum payments, 4. collective defined contribution); and **third**, the source of funding (1. employer, 2. employee, or 3. both employer and employee).

Table 1 depicts the various possible combinations of methods of implementing the occupational pension scheme (first criterion), the possible types (second criterion) and whether or not employees can make their own contributions to the pension scheme via salary conversion (an element of the third criterion). It is advantageous for employees to ask the employer to redirect parts of the gross income into contributions to an occupational pension scheme (= salary conversion) because these employee contributions are tax-exempt and are also exempt from social-security contributions that are up to 4 % or 8 % a year of the social-security contribution ceiling (see below).

Methods of implementing occupational pension schemes	Types of occupational pension schemes			
	Defined benefit	Benefit promise derived from contributions	Defined contribution with guaranteed minimum payments*	Collective defined contribution ("defined ambition")**
- book reserve	possible	possible, also via salary conversion	not possible	not possible
- support funds			possible, also via salary conversion	possible, also via salary conversion
- direct insurance				
- pension institutions				
- pension funds				

* at retirement age the accumulated capital must equal at least the contributions made minus risk contribution (if applicable)

** introduced by the law to strengthen occupational pensions ("Betriebsrentenstärkungsgesetz"), this came into force on 1 January 2018.

Table 1: Possible combinations of the five methods of implementing occupational pension schemes with the four types of occupational pension schemes (adapted from Doetsch et al. (2013: 34) and amended due to the new regulations which came into effect on 1 January 2018)

The relevant legal framework is the Occupational Retirement Provision Act. Before 1999, it did not contain any details with respect to the types of occupational pension schemes depicted in the columns of Table 1 (Buttler and Keller 2017). In 1999, the BetrAVG was amended by explicitly introducing a **benefit promise derived from contributions** (“beitragsorientierte Leistungszusage”) in order to distinguish it from a **defined benefit promise** (“Leistungszusage”). The latter is the employer’s promise of a defined pension entitlement, given, for example, in the form of a fixed amount or a percentage of the employee’s final salary before retirement. In comparison, employers making benefit promises derived from contributions initially focus on contributions to the pension scheme and then calculate what entitlements will result from these contributions.

With effect from January 1st, 2002, the BetrAVG was expanded through the introduction of regulations for an additional type of occupational pension scheme: **defined contribution with guaranteed minimum payments** (Buttler and Keller 2017). Here, the employer promises that, at the very least, the contributions (without interest but minus expenses for biometrical risk provisions) are on hand at the employee’s retirement age. This type of pension promise is only possible via direct insurance, pension institutions or pension funds (see Table 1).

The fourth type of occupational pension scheme came into effect on 1 January 2018. The law to strengthen occupational pensions (“Betriebsrentenstärkungsgesetz”) allows employers in Germany to use defined contribution pension schemes without any minimum-payment guarantee for the first time. It is called **collective defined contribution** (“CDC” or “defined ambition” or “target pension”) because this type of occupational pension scheme can only be set up by companies that have joined a collective bargaining agreement (“Tarifvertrag”) in their respective industry, or by companies that decide to adopt the main elements of the relevant agreement in case they are not bound by collective bargaining agreements. Due to the obligatory involvement of trade unions and employers’ organisations (known as the social partners), it is expected that the first CDC plans will not be launched before late 2018 or early 2019 (Fixsen 2017). Another reason for the delayed introduction of the new

plans is seen in the fact that new legislation “will add further complexity to an already confusing landscape” (Fixsen 2017: 45). The law to strengthen occupational pensions increased the number of possible combinations of methods of implementing occupational pension schemes (rows in Table 1) with types of occupational pension schemes (columns in Table 1). In Table 1, all possible combinations are depicted which also illustrates that CDC plans are introduced as an additional type of occupational pension scheme and are not seen as substitutes for existing types. However, they can only be implemented via direct insurance, pension institutions or pension funds. By abolishing minimum guarantees, the legislator tries to boost the dissemination of occupational pension schemes, especially in the sector of small and medium-sized companies, where the coverage of employees with occupational pension schemes is still below-average. It is argued that CDC plans will relieve employers of liability burdens (“pay and forget”, Droßel 2018: 100).

The law to strengthen occupational pensions brought a number of further amendments to the Occupational Retirement Provision Act and the Income Tax Act, which were also aimed at increasing the dissemination of occupational pension schemes (Dünn 2017). First, an auto-enrolment option is legally specified, for the first time, in the Occupational Retirement Provision Act. Such opt-out systems can now be introduced under certain conditions via collective bargaining agreements (§ 20 (2) BetrAVG).

Second, employers are obliged to contribute 15 % of the amount of the employee’s salary conversion as an additional employer contribution to his/her pension scheme. This additional employer contribution, however, is capped to the amount of the employer’s savings in social-security contributions resulting from the employee’s salary conversion (§ 26a BetrAVG defines some transitional provisions).

Third, the maximum tax-free contribution to direct insurance, pension institutions and pensions funds is increased from 4 % to 8 % of the social security contribution ceiling (in 2018: 8 % of 78,000 = 6,240 Euros per year).

Fourth, employers raising their contribution to the occupational pension schemes of employees with a monthly gross income of up to 2,200 Euros (low-income earners who will not profit from tax incentives) to between 240 and 480

Euros annually are offered a tax incentive of 30 % of their additional contributions (hence, maximal 144 Euros = 480 Euros * 30 %).

There is a growing influence of European legislation on the various pension systems throughout Europe (Lundbergh et al. 2014). In April 2014, for example, the European Parliament approved a directive aimed at facilitating the portability of pensions across EU member-states (Guardiancich 2016). Nevertheless, the German regulatory framework for occupational pension schemes is quite different from the regulatory framework in other European countries (see, for instance, OECD (2017) and Stöger (2011); for a comparison between the regulatory framework in the UK and in Germany, see Blömeke (2007) and Gieg (2008)). With respect to human resources management, it has to be considered that, for example, in Germany, occupational pension schemes are not used for directing employees' retirement due to the fact that employees' retirement age is prescribed by law (within a certain range).

In the international context, it is also important to point out that, even when the same terms are used in different countries, the meanings may be different. For example, the terms "defined benefit" and "defined contribution", as used in the Anglo-American area, do not mean exactly the same as they do in Germany. In the Anglo-American area, for instance, there is no warranty obligation for the employer with respect to pledges made to employees (see, for example, Doetsch (2011) for details).

Due to the complexity of the German occupational pension system and its various reforms, statistical material regarding the dissemination of different occupational pension-scheme designs often comprises only those years from 2001 onwards. In some areas, the statistical material is, at the very least, subject to uncertainties (Walther 2016). According to a study commissioned by the Federal Ministry of Labour and Social Affairs (BMAS 2016c), the proportion of business premises in the private sector in which occupational pension schemes were offered increased between December 2001 and December 2015 from 31 % to 49 %. In the same time period, there were enormous changes regarding the source of funding. Whereas the proportion of occupational pension schemes financed exclusively by the employer

decreased from 54 % to 28 %, the proportion of occupational pension schemes co-financed by employer and employee increased from 27 % to 60 %. The main reason for this shift may be a change in the regulatory framework. From 2002 onwards, every employer is legally bound to offer employees the possibility of salary conversion. The proportion of business premises offering occupational pension schemes without any employer contribution has almost stagnated (26 % in 2001, 25 % in 2015) (BMAS 2016b). With effect from January 2018, the vesting period of employer contributions was reduced to three years (§ 1b BetrAVG).

The occupational pension coverage (measured as a percentage of the employment relationships that are fully subject to social insurance) differs highly depending on the size of the business premises (the bigger the premises, the higher the percentage) and the business sector (the highest is the financial sector at 81 %, the lowest is the hospitality industry at 20 %) (BMAS 2016b). There are differences in the occupational pension coverage between men and women as well: The coverage is higher for men (49 %) than for women (44 %) (BMAS 2016c). Moreover, on average, men draw a higher occupational pension (578 Euros) than do women (245 Euros). These average amounts were calculated without including widows' pensions (BMAS 2017a).

No time series is available for the development of the various types of occupational pension schemes (defined benefit, benefit promise derived from contributions, defined contribution with guaranteed minimum payments). However, due to the decreasing proportion of book reserves and support funds (BMAS 2016b), in combination with employers' risk-reducing strategies, there is evidence that defined benefit plans have become less and less important.

In this chapter, an overview of the characteristics and dissemination of occupational pension schemes in Germany has been given. The following Chapter 2 comprises the literature review. It focuses on the role of occupational pension schemes as a human resources management tool and on the theoretical constructs of "organisational commitment" and "psychological contract".

2. Literature review: Occupational pension schemes in human resources management and theoretical framework

As outlined in the previous chapter, occupational pension schemes might play an important role both in attracting new employees and in retaining them. Attracting promising employees and retaining them are the central aims of personnel marketing: personnel marketing can be defined as a company's concept of thinking and acting with the aim of creating preferences towards the company on the part of potential and current employees (Felser 2010). While recruiting can be subsumed under external personnel marketing, retention management can be subsumed under internal personnel marketing (DGFP 2006). In Chapter 6, the personnel marketing framework will be used in an integrative way in that it brings theory and practice together: it is shown that the theory that informs the empirical research for this thesis can deliver starting points for the practitioners' personnel marketing activities.

This literature review chapter will focus on the theoretical part. First, it will address the question: How far has the role of occupational pension schemes for recruiting and retention of employees already been explored in other empirical research studies? (Chapter 2.1) Second, it will present the academic debate with regard to two theoretical constructs which are widely recognised as being important for the employment relationship: a) organisational commitment (Chapter 2.2), b) the psychological contract (Chapter 2.3), b) and c) the interrelationship between the two constructs (Chapter 2.4).

2.1. Occupational pension schemes as a tool for human resources management

In their survey of the literature, Gustman et al. (1994) came to the conclusion that offers of occupational pension schemes could be seen as a tool for human resources management for various reasons. "Pensions have been seen as a device for attracting workers with certain traits, for eliciting greater work effort, for achieving desired turnover patterns, and sometimes for prompting retirement at particular ages" (Gustman et al. 1994: 419).

The following literature review, which will also update the review of Gustman et al. (1994), begins with an analysis of the objectives that employers might pursue with the offer of occupational pension schemes, especially with regard to recruitment and retention management (Chapter 2.1.1). Then, the review focuses on the employees' views of occupational pension schemes (Chapter 2.1.2).

2.1.1. Employers' view of the role of occupational pension schemes

Taylor (2000), for example, states that historical research has revealed that the assumption that offers of pension schemes can reduce staff turnover was the decisive reason for employers in the UK initiating occupational pension schemes in the late 19th and early twentieth centuries. Hannah (1985: 352) explains that the attempt to "gain stronger lifetime commitment" of the employees by retaining parts of the remuneration of the employees and paying these parts out as pension only after a lifetime of employment was indeed a strong motivation for British employers to offer employer-financed pension schemes.

In respect of Germany, Schwark (2007) points out that initially the constitution of occupational pensions in the early 19th century was directed by social or paternalistic motives. This was especially the case with family-held firms. Nevertheless, even when the owner of a company announced that social purposes were the rationale for the pension-scheme offer, the design of the pension scheme often disclosed that another reason was of special importance as well: By making the entitlement to pension-scheme payments conditional on a fixed minimum job tenure, the pension-scheme offer sought to prevent employees from quitting. According to Wiedemann (1990), the aim of retaining employees gained more and more importance with the accelerating pace of industrialisation (for details of the history of public and company pensions in the UK and Germany, see: Hannah, 1985, 1986, Sass 2006, Walker and Foster 2006, Uhle 1987, Wiedemann 1990, and Schwark 2007).

However, currently only a few empirical studies have focused on a detailed analysis of why employers offer occupational pension schemes. One of these studies was carried out by Terry and White (1997). Their survey data, gathered

from 88 employers in Scotland, revealed that 80 out of 82 employers offering a pension scheme did not try to find out if their pension scheme was relevant for potential employees in the recruitment process. They found that 75 out of 82 employers stated that they had no evidence that their pension scheme might be effective in terms of having a motivational factor for employees. Terry and White (1997) also asked these employers to rank real existing offers that may help to recruit employees. The pension scheme was ranked fourth out of 14. The first three ranks were (in descending order): performance-related pay, company car and profit-related pay. The employers' rankings regarding their assessments if their pension scheme offer might encourage employees' work and productivity might be even more sobering: as compared with other encouragements offered by the employer, the pension scheme offer was ranked only ninth of 14. Here again the offer of performance-related pay is by far the most important motivator. In a paper published later, Terry and White (2000a) came to the conclusion that as "a recruitment, retention and motivation device, there is little evidence to suggest that employers undertake systematic, or regular, evaluations of the effect of pension schemes on labour market behaviour" (Terry and White 2000a: 273). The authors draw these conclusions from follow-up interviews to their postal survey, the results of which they published in 1997 (see above). Against this backdrop, it is surprising that employers are prepared to invest large amounts in their pension schemes. According to the empirical study by Terry and White (2000b), the employers contributions, on average, amount to 9.8 % of current salary. Employer contributions are much higher than this average in cases where employers offer defined benefit schemes (as opposed to defined contribution schemes) or where employers offer pension schemes that are non-contributory for the employees.

In this regard, it has to be mentioned that, in the meantime, the British legislation has changed. The Pensions Act 2008 obliges all employers to enrol all eligible employees automatically into a workplace pension scheme from 2012 onwards. After a transitional period, which ends in September 2018, the minimum contribution to this pension has to be 8 % of qualifying earnings. The minimum contribution from the employer is 4 %, the minimum contribution of

the employee 3 % (for details, see Lowe 2013). In Germany, such an auto-enrolment system for all occupational pension schemes with opting-out possibilities, as has been implemented in the United Kingdom, still does not exist. However, by the law strengthening occupational pensions (“Betriebsrentenstärkungsgesetz”, see Chapter 1.2), which came into force on 1 January 2018, the German government paved the way for collective bargaining parties to decide on whether or not to introduce opt-out systems via collective bargaining agreements. Due to the complexity of the German pension system, there is a lack of detailed official statistics and empirical studies that might reveal the average contributions of employers in Germany (for details regarding these statistical gaps, see Walther 2016). It is, however, possible to analyse the employer-financed contributions by reference to some important players in the market. One of these players is the Pension Institution of the Federal Republic and the Federal States (Versorgungsanstalt des Bundes und der Länder [VBL]). According to its homepage, the VBL currently (2018) offers occupational pensions for 5,300 employers and about 4.5 million employees in the public sector (VBL 2018a). Broadly speaking, the compulsory contributions, to be paid by the employer, amount to 6.45 % of the respective employee’s salary, the compulsory co-payment of the employee being 1.81 % (VBL 2018b).

Although very few employers have tried to measure the effectiveness of pension schemes to attain certain aims, they might at least have reasons to *believe* that their expenses for pension-scheme offers might be worthwhile. In a survey carried out by the National Association of Pension Funds in 2008, 60 % of the respondents (human resources managers) strongly agreed with the statement that offering a pension was helpful for positioning a firm as a responsible employer (see Figure 1).

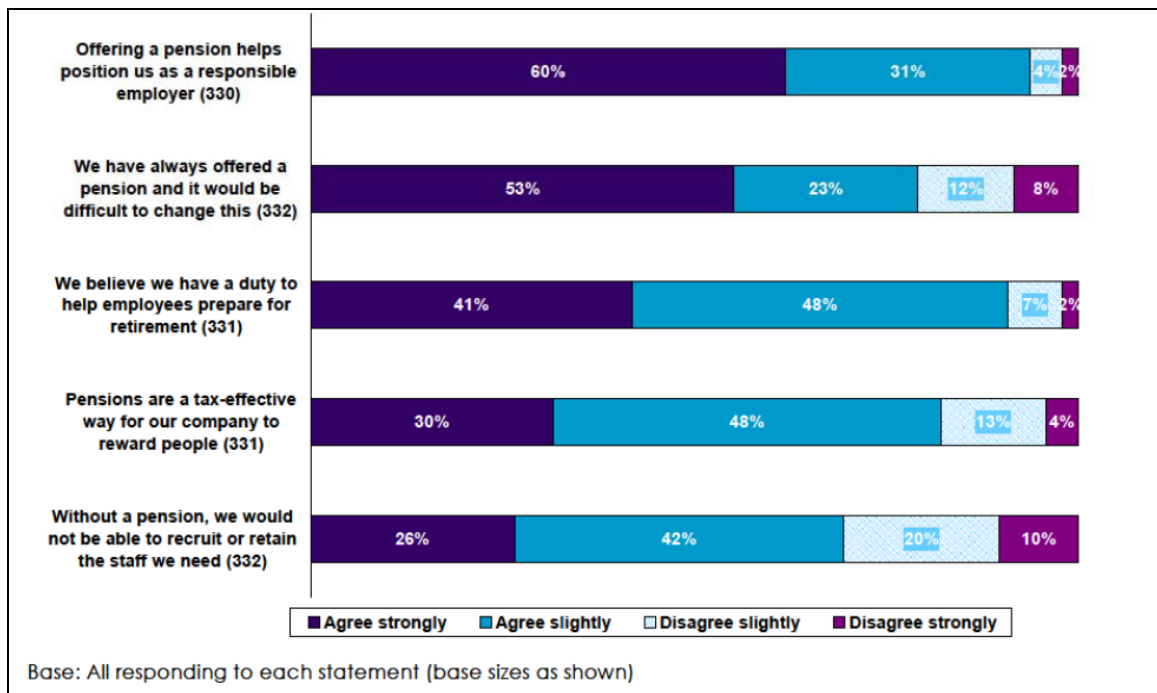


Figure 1: HR managers' opinions on pensions (National Association of Pension Funds 2008: 7)

It seems astonishing that, from the five items presented to the human-resources managers, the second highest percentage of “agree strongly” was assigned to the item: “We have always offered a pension and it would be difficult to change it” (53 %). This could be interpreted as saying that more than half of the managers feel forced to maintain their pension-scheme offer, although they are not convinced of its effectiveness. Less than half of the HR managers strongly agree with the statement that they believe they have a duty to help employees to prepare for retirement (41 %). The percentage of “strongly agree” is even lower for the last two statements: “Pensions are a tax-effective way for our company to reward people” (30 %) and “Without a pension, we would not be able to recruit or retain the staff we need” (26 %).

The low level of agreement with the last statement seems to contradict findings of other research studies. Taylor and Earnshaw (1995), for example, asked personnel and pension managers for their assessment of seven potential pension-scheme offer objectives. The first three with the highest percentages of “very significant” were in descending order: “retaining good employees” (73 %), “attracting good staff” (51 %) and “improving industrial relations” (38 %). When the respondents were asked to determine the most important objective

at the present time, most managers stated that “retaining good employees” was most important (60 %). “Managing the retirement of staff” (16 %) and “attracting new staff” (12 %) are, to a clearly lower extent, seen as the most important objectives. In terms of a current assessment of Taylor and Earnshaw’s findings, changes in legislation might play an important role. Taylor himself, for example, stated in 2000 that there were “grounds for questioning the extent to which pension schemes continue to have the clear retentive effect that they probably did have historically. In the UK, for example, occupational pensions must now be vested fully once two years’ service has been completed” (Taylor 2000: 250). Taylor also points out that the retentive effect seems to be lower for white-collar workers and graduates with comparatively high earnings.

Perhaps the most detailed analysis of the reasons why companies may or may not choose to offer occupational pension schemes was carried out by Orla Gough (2006). She focused on small companies with 5 to 100 employees, which had thought about introducing a sponsored pension scheme within the last three years before the research. The first step of her research comprised focus groups with 64 participants (employers), which, in a second step, were followed up by a survey in order to quantify the findings from the first step. She found out that the companies who adopted a sponsored pension scheme considered the following six out of 15 reasons most important (in brackets: means measured on a five-point Likert scale; the lower the mean, the more important it is): a) human resources: comply with industry (mean 1.23), b) loyalty of key staff (mean 1.3), c) new staff to enter new markets (mean 1.5), d) comply with working conditions in large firms (mean 1.9), e/f) staff retention and paternalistic management style (each with a mean of 2.1). However, roughly 33 % of respondents also saw disadvantages with occupational pension schemes: they saw pension schemes as an obstacle to flexible working structures.

2.1.2. Employees’ view of the role of occupational pension schemes

One might be surprised at the great number of empirical studies that deal with the antecedents of employees’ voluntary turnover or with models that try to

predict labour turnover (see, for reviews, particularly for meta-analyses: Hom et al. 2012, Holtom et al. 2008, Morrell et al. 2001, Griffeth et al. 2000, Maertz Jr. and Campion 1998). In contrast to this, the number of empirical studies that examine the role of occupational pension schemes as a human-resources tool for binding employees to the company is relatively low. Of the five review/meta-analysis papers above mentioned, only that one by Hom et al. (2012) mentions pension schemes, but in a rather parenthetical way by questioning the subsumption of “retirement” under involuntary turnover. The authors posit that the degree to which the employee’s retirement decision is voluntary depends on the design of his/her pension schemes (401K, Defined Benefit or Defined Contribution).

Before reviewing the research papers that allow for occupational pension schemes, a basic categorisation of turnover models in process models and content models will be introduced. “Process models of turnover focus on *how* people quit; content models focus on *why*” (Maertz Jr. and Campion 2004: 566). For a long time, the turnover research was dominated by **content models**. For example, March and Simon (1958), who were among the first to develop a model of voluntary turnover or of a decision to participate, argue that employee turnover is mainly the result of a) the perceived desirability of movement and b) the perceived ease of movement. According to them, the former component is mainly influenced by the employee’s job satisfaction and his/her possibilities of internal movements, whereas the latter is an outcome of the perceived possibility of extra-organisational movements.

One of the first, more complex conceptual turnover models which allow for the **withdrawal process** was presented by Mobley et al. (1979). The authors developed it based on a comprehensive literature review and also as a response to the call from other researchers to place more emphasis on the processual character of withdrawal (e.g. Porter and Steers 1973). The process character was mainly incorporated into the model with the assumption that the intention to search for an alternative job and the intention to quit are direct precursors of the decision to leave. Moreover, the model of Mobley et al. (1979) does not only comprise a variable like “satisfaction”, which more or less reflects only a present status, but also the more future-oriented variables which

Porter and Steers (1973) called “attraction expected utility of present job” and “attraction expected utility of alternative jobs”. Further advancements in terms of closeness to reality, for instance, as compared with the model of March and Simon, are the explicit emphasis on non-work related variables and individual differences in perceptions, expectations and values and also on individual differences in personal and occupational variables. The model of Mobley et al. is introduced here not only because it was one of the first process models, but also because, unlike most other models, it explicitly allows for the individual’s preference for immediate gratification versus delayed gratification and its influence on turnover decisions. This influence might be important for the analysis of the role of pension schemes for decisions to stay versus decisions to leave. The reason for this is that many pension schemes are designed as deferred compensation schemes, which thus imply a trade-off between immediate gratification and delayed gratification.

Other seminal labour turnover models would be worth presenting in more detail here, for example, the unfolding model of employee turnover (Lee and Mitchell 1994) or the turnover research based on the construct of job embeddedness (Mitchell, Holtom, Lee, et al. 2001). In the following, however, the focus is narrowed down to studies which explicitly allow for the role of occupational pension schemes for attracting and retaining employees.

One stream of research tried to explain the role of occupational pension schemes for retaining employees by theoretical reasoning based on **mathematical equations** which aimed to calculate the capital loss that employees may suffer in case of voluntary turnover and from which the probability of turnover could be derived. Two authors who represent this stream of “pension economics”, and who are often cited, are Lazear and Ippolito. These mathematical approaches presume that employees make their turnover decisions in a very rational manner, for example, by allowing for tax considerations, the timing of compensation over the life cycle (Ippolito 1987), the “option value” for working an additional year (Lazear 1990, Lazear and Moore 1998), or the required increase in compensation paid by a new employer, which may offset the loss of prospective pension entitlements

(Ippolito 1987). These mathematical models are not discussed in greater detail, primarily for two reasons: first, they are based on various simplifying assumptions which seem to be, at least partly, far from reality. For example, the benefit formulas of Lazear and Moore (1998) presume that pensions are the employees' only form of compensation. Another simplification is the implicit assumption that employees decide, like a "homo oeconomicus" (see Kirchgässner 1991 for details), in a rational manner based on well-known details of their pension schemes, such as vesting periods, prospective entitlements, etc., but without taking any other potential decision parameters for job changes into consideration. Various research studies, however, give rise to doubts regarding these assumptions (for other influential decision factors, see the following paragraph; for the non-knowledgeability, see, e.g.: Mitchell 1988, Gustman and Steinmeier 2005, Bucher-Koenen 2011). Second, pure mathematical models which are not based on a prior empirical exploration of employees' decision-making patterns will not be able to deliver reliable answers to the question about which role occupational pension schemes really play for employees' job-change/job-choice decisions in daily life.

Surprisingly, in the academic literature, relatively few **empirical studies** focus on the role of occupational pension schemes for employees. Alongside the few academic articles, there exist some reports of the findings of public institutions or commercial players in the old-age provision market. For example, the globally operating consultancy firm Towers Watson (now Willis Towers Watson) carried out a world-wide empirical research study with 22,000 respondents, with a focus on employees' views of occupational pension schemes, in 2013/2014. From the overall 22,000 respondents, 2,000 accounted for Germany. The main results for Germany were accessible upon request (see, for example, Figure 2).

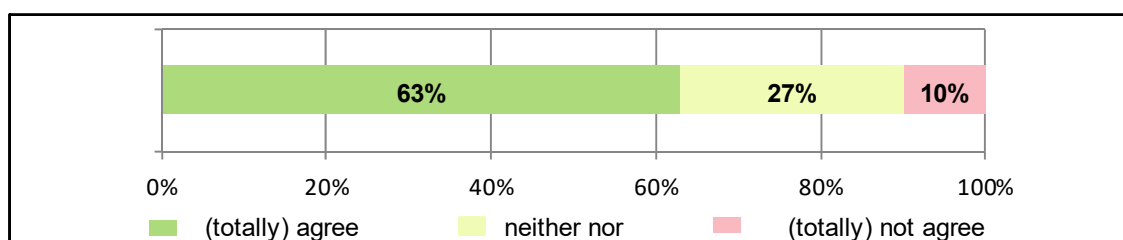


Figure 2: View of the employers' role with respect to the offer of an occupational pension scheme (own illustration adapted from Jasper et al. (2014: 7))

Approximately 63 % of the respondents in Germany stated that they (totally) agreed that it was important to them that their employer played an active role with respect to the provision of an occupational pension scheme.

However, in slight contrast to this high percentage, only 27 % of the employees (totally) agreed with the statement that the occupational pension scheme had played an important role in their choice of current employer. Once employed, the pension scheme is obviously more valued: for 40 % of the respondents, the occupational pension scheme is an important reason to stay with their current employer. Thus, this study seems to confirm the findings of Gough and Hick (2009) that, from the employees' point of view, the retention effect is much higher than the attraction effect.

Of the few studies that focus on the employees' view, however, most focus only on either the retention function or the attraction function of pensions. Loretto et al. (2000), for example, analysed the questionnaires which were completed by 1,124 employees of a financial services company in the UK. The employees were asked to assess the relevance of 20 items for their job choice. Pension schemes were the fifth most important item. More important, in descending order, were: annual review of job salary, job security, competitive salary and opportunities for training. Loretto et al. (2000) found out that knowledge of the amount of employer contributions was, in general, poor. Thus, one could suggest that the relevance of a pension scheme for the choice of a job, and the choice of an employer, might increase with improvement of the employees' knowledge of the value of the occupational pension scheme offer. In a later paper, Loretto et al. (2001) published the results of their survey in which 460 undergraduate business students of the University of Edinburgh participated. Here again, the survey participants were asked to assess the relevance of several items for their job choice. (The items differed from the items which were presented to the above mentioned employees of the financial services company). The items are listed below. They are sorted in descending order by the percentage of "essential" and "very important" answers: 1. Promotion opportunities (85 %), 2. Training opportunities (70 %), 3. Good pay 69 %), 4. Job security (65 %), 5. Reward based on merit (59 %), 6. Creative work (56 %), 7. Location (51 %), 8. Responsibility (49 %), 9. Travel

opportunities (48 %), 10. Social climate (38 %), 11. Occupational pension (34 %), 12. Contribution to society (21 %), 13. Age profile (8 %). As can be seen, “occupational pension” only occupies 11th place out of 13. The differences between the results of the two studies (Loretto et al. 2000, Loretto et al. 2001) regarding the importance of occupational pension schemes for job choice (5th place for employees in the financial sector versus 11th place for undergraduate business students) may be attributable to great differences in age and, closely related, to the financial situations between the respective respondents. The undergraduate students first have to find their career paths before thinking of retirement. It is, however, remarkable, that even employees who are working in the financial services industry, are not clearly aware of some important details of their pension provision (Loretto et al. 2000).

Foster (2012), who interviewed 15 women aged between 18 and 30 in the UK with regard to their pension planning, confirmed to some extent the findings of Loretto et al. (2000, 2001) for those women who were in managerial or professional occupations: She agrees that occupational pensions may have “some, albeit limited impact on their choice of employer” (Foster 2012: 779). There is another research study with a focus on women: Gough (2004) researched how men and women might differ in their reasons for not joining pension schemes. Although this empirical study does not aim at finding out the role of occupational pensions for the choice of an employer or for staying with an employer, it raises the awareness that women might put less value on occupational pension schemes than men. According to Gough (2004), the main reason for women not to join an occupational pension scheme is that they expect their partners to provide retirement income.

Another distinct approach to exploring employees’ attitudes towards pensions was chosen by Byrne and Rhode (2006). They had the chance to conduct focus groups with 36 employees of the same company in the UK. The interviewees were split up into four focus groups according to their membership of three different generations of pension schemes or, respectively, their non-membership. The most relevant findings for this thesis were: first, occupational pensions were, especially for two groups of employees, regarded as a retention factor: a) elder employees and b) employees who realise that

they are privileged by having pension entitlements to a beneficial but now closed scheme (DB scheme) which they would not be offered again by a new employer. Second, most DB members stated that a good pension offer would be helpful for the company to attract new employees. Other employees, however, brought into consideration the fact that pension-scheme offers are normally not mentioned during the recruitment process and might be irrelevant to younger employees.

Loretto et al. (2000) mention that the pension-scheme offer might be seen as a hygiene factor in the Herzbergian sense: the absence (or the withdrawal) of the pension-scheme offer leads to dissatisfaction, while the provision of this offer does not lead to satisfaction. This finding might be questioned by the research results of the National Association of Pension Funds (2010): first, of the 1,248 employees in the UK, who were asked “How would you view an employer who offers a pension as opposed to one who does not”, 29 % answered “much more positively” and 48 % “more positively”. Second, employees obviously see workplace pensions as by far the most important benefit on top of their salary (38 %, see Figure 3), followed by “flexible working”, “bonus”, “generous holiday allowance” and “health insurance”.

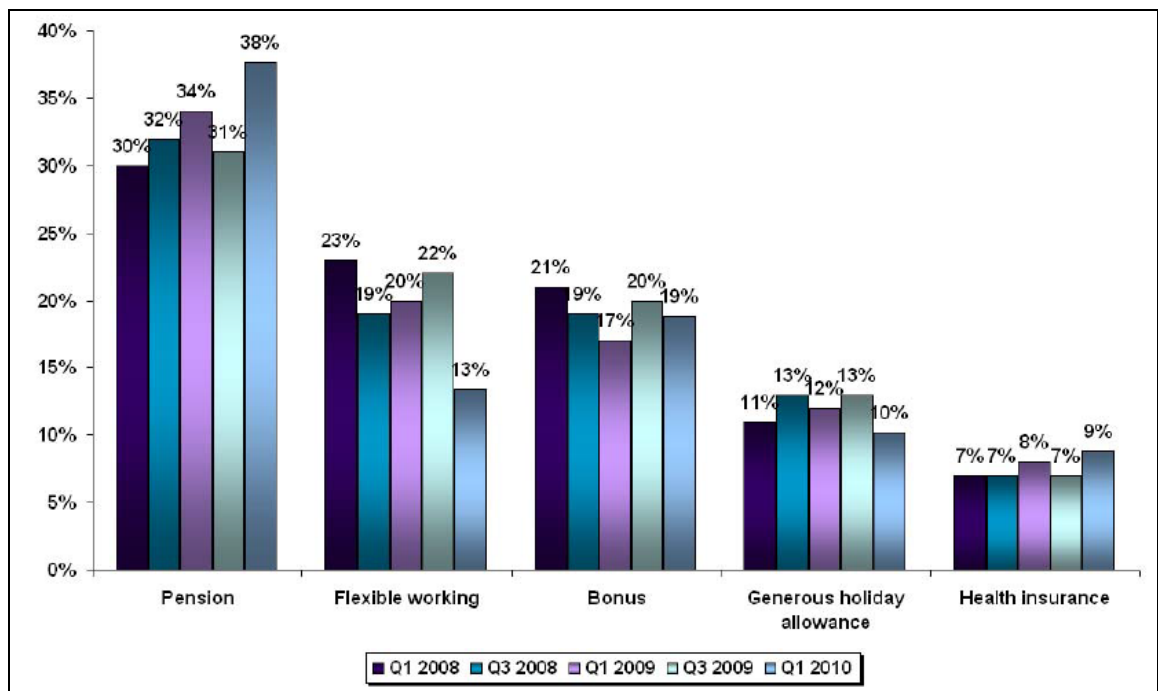


Figure 3: Importance of benefits on top of employees' salary (National Association of Pension Funds 2010: 6)

For Germany, the findings of Rabe (2007), which were derived from secondary data, underline the importance of occupational pension schemes as a tool for retaining employees. She found out that, in Germany, employees who benefit from an occupational pension scheme are three times less likely to change their jobs than employees who are not covered by an occupational pension scheme. She sees three main reasons for this negative relationship between pension coverage and voluntary turnover: first, employees in Germany often face portability losses; second, employees covered by an occupational pension scheme might benefit from an above average compensation package, including an above average salary which prevents them from leaving their current employer; third, those employees who prefer secure long-term employment contracts “may sort into jobs covered by pensions” (Rabe 2007: 532). In her article, from which this quote is taken, she references the work of Schiller and Weiss (1979), who also used secondary data (but for the United States). Schiller and Weiss emphasised that the effect of pension coverage on the reduction in turnover probabilities varied with the characteristics of the pension-scheme design. The focus of both Rabe (2007) and Schiller and Weiss (1979) on calculations of probabilities of job turnover (the latter analysis could not even properly differentiate between voluntary and involuntary turnover) is seen as a drawback because, as highlighted by George (2015), intentions to stay and turnover intentions cannot be seen just as two opposite ends of the same construct.

This latter aspect is highlighted by a longitudinal study by Loan-Clarke et al. (2010). Their main interest was to analyse whether employees’ reasons for staying were the same as for leaving or returning. They found out that occupational pensions were the second most popular reason for employees staying within the British National Health Service (NHS). This is all the more relevant because the respondents were asked open-ended questions. When former NHS employees were asked why they left the organisation, pensions were not mentioned. Based on this and similar results regarding other retention factors or leaving factors, Loan-Clarke et al. (2010) argue that employees’ reasons for staying are different from their reasons for leaving.

In conclusion, only few studies exist that aim to explore how the offer of occupational pension schemes could contribute to the recruitment and retention of employees. A discussion of the research gaps will be presented in Chapter 3.

All empirical studies presented in this paragraph 2.1. are listed in chronological order in Appendix 2 (with additional information about sample size, methodology, etc.).

The following two sections introduce the two theoretical constructs on which the research conducted for this thesis is based. Chapter 2.2 provides an overview of the commitment construct (especially organisational commitment). Chapter 2.3 offers an overview of the psychological-contract construct. Chapter 2.4 briefly illustrates the interrelation between both constructs. Please note that, in this thesis, the terms “construct” and “concept” are used interchangeably (e.g., Ridder 2016).

2.2. Theory regarding “commitment”

According to Allen and Meyer (1990: 14), [organisational] “commitment refers to a psychological state that binds the individual to the organisation (i.e. makes turnover less likely)”. In the academic literature, organisational commitment is seen as the decisive factor for the bond that ties employees to the employer (e.g. Meifert 2005, Van Dick 2004, Mowday et al. 1982, Maihöfner 2013). It is a construct, which means that it is an element of scientific discourse (Edwards and Bagozzi 2000) that “is abstract and latent rather than concrete and observable [...]”. Such a variable is literally something that scientists ‘construct’ (Nunnally and Bernstein 1994: 85). Thus, it has to be operationalised, which means that it has to be translated into tangible indicators (Saunders et al. 2012). The vast number of publications about organisational commitment (see, e.g., Salman et al. 2017) might, however, indicate that various definitions and ways of operationalisation exist. The following chapters serve the purpose of giving an overview of the most influential concepts/schools of commitment research, of how commitment can be defined and of how the construct can be operationalised. The following chapters also include an overview of the antecedents, correlates and consequences of commitment.

2.2.1. Organisational commitment: Definitions and review of developments

Milestones in the academic debate regarding the construct “commitment” can be traced back to the 1960s. In his article “Notes on the Concept of Commitment”, Becker (1960) introduced the term “side bets” to explain why employees might act in a consistent way in the course of time. In the context of organisational commitment, this consistency is seen in the employee’s decision to stay with the employer. Side bets in this context refer to the employee’s prior actions or investments that would turn out to be of no avail in case of voluntary turnover. Thus, side bets imply that voluntary turnover would induce costs for the employee. The employee’s desire to avoid these costs might lead to the decision to stay. Here, the employee’s commitment is primarily directed towards a particular course of action and not to the organisation itself (Meyer and Allen 1997). This kind of commitment is called continuance commitment. Becker mentions the example of firm pensions: An employee with a long tenure might be confined to the employer because her/his pension entitlements are at stake if she/he leaves the company. As Mowday et al. (1982) state, previous behaviour leads to a loss of degrees of freedom in one’s behaviour in the future. This illustrates why the work of Becker can be subsumed under the “**behavioural commitment school**” which is closely connected to the work of social psychologists such as Kiesler (1971). Other representatives of this school are Kanter (1968), Etzioni (1961) and Salancik (1977).

The second key school is the “**attitudinal commitment school**” which is ascribed to organisational-behaviour researchers (see Mowday et al. 1982, Meyer and Allen 1987) and which was shaped by Porter and his co-authors, e.g. Mowday and Steers (Porter et al. 1974, Mowday et al. 1979). “The attitudinal perspective focuses on how individuals identify or relate to the commitment target” (Klein et al. 2009: 6). According to Porter et al. (1974: 604), organisational commitment can be characterised by at least three elements: “(a) a strong belief in and acceptance of the organization’s goals and values; (b) a willingness to exert considerable effort on behalf of the organization; (c) a

definite desire to maintain organizational membership.” Meyer and Allen (1997) point out that research studies that can be subsumed under the attitudinal commitment school generally aim at the measurement of commitment and the analysis of variables that are possible antecedents to commitment or consequences of commitment.

Felke (2008) linked both key schools, as depicted in Figure 4 (likewise Gauger 2000: 77). His intention is to show an interrelation between the two concepts of commitment: Attitudes precede behaviour, whereas behaviour has repercussions on attitudes. The latter is the case because people are inclined to adjust attitudes when they are not congruent with former behaviour.

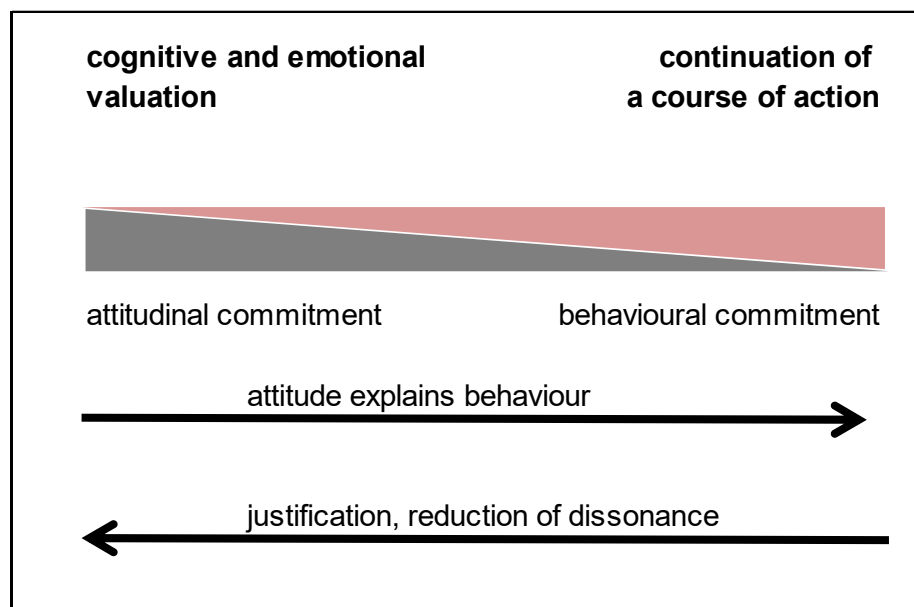


Figure 4: Two concepts of commitment (based on Felke (2008: 34))

Mowday et al. (1982: 26) posit that these possible mutual interactions may lead to a “self-reinforcing cycle”: attitudes influence behaviour, behaviour has repercussions on attitudes, which in turn may reinforce previous behaviour and so forth.

Wiener (1982: 421) brought in another definition of organisational commitment. He defined it “as the totality of internalized normative pressures to act in a way that meets organizational goals and interests”.

In 1991, Meyer and Allen published their influential article “A three-component conceptualisation of organisational commitment”. Various publications followed. In 1997, they defined these three components as follows:

- a) “Affective commitment refers to the employee’s emotional attachment to, identification with, and involvement in the organization” (Meyer and Allen 1997: 11).
- b) “Continuance commitment refers to an awareness of the costs associated with leaving the organization” (Meyer and Allen 1997: 11).
- c) “Normative commitment reflects a feeling of obligations to continue employment” (Meyer and Allen 1997: 11).

The definitions a) to c) can be conflated into the following sentence: Employees with high affective commitment stay with their employer because they want to, employees with high continuance commitment because they need to and employees with high normative commitment because they think they ought to (Meyer and Allen 1991).

Meyer and Allen’s approach seems to merge various conceptualisations into one: The *affective* commitment component seems to capture, at least partly, the characterisation of Porter et al. (1974) of organisational commitment (see above). The *continuance* commitment component resembles the ties that Becker (1960) described by his pension-fund example. Some researchers stated that the perceived loss of prior investments is only one of two subcomponents of continuance commitment. The other subcomponent is seen in the perception of a lack of employment alternatives (Clugston 2000, Meyer and Herscovitch 2001, Stinglhamber et al. 2002). However, this subcomponent view is disputed (Jaros 2012). The *normative* commitment component is linked to Wiener’s (1982) definition. Meyer et al. (2002: 40) explicitly confirmed this link for the eight-item version of their normative commitment scale.

In the literature, the three-component model of Meyer and Allen is widely recognised as the model with the highest acceptance in the research community (Van Dick 2004, Westphal 2011), according to Schmidt (2013), even with an upward tendency. Table 2 presents a brief summary of the key schools, particularly commitment concepts, which were introduced before. The

last column in Table 2 depicts references to examples of operationalisations of the respective commitment concepts (see appendices 3 to 7 for details).

	commitment concept	central aspects	operationalisation
behavioural commitment	side bet concept (Becker 1960)	pay, creative leeway, status, responsibility, opportunity to go ahead	Ritzer-Trice-Scale (1969)
		pay, creative leeway, status and friendly colleagues as determinants of staying	Hrebiniak-Alluto-Scale (1972)
attitudinal commitment	attitudinal commitment (Porter et al. 1974, Mowday et al. 1979)	willingness to extra-role-behaviour, loyalty, pride, similarity of values, etc.	Scale of Mowday, Steers and Porter (1979): Organizational Commitment Questionnaire (OCQ)
		compliance, identification and internalisation as dimensions of organisational commitment	Scale of O'Reilly and Chatman (1986)
mixed approach	three-component model (Meyer and Allen 1991)	aspects that lead to - a desire to stay - normative pressure to stay - the need to stay with the organisation	Meyer and Allen (1991,1997): affective commitment scale normative commitment scale continuance commitment scale

Table 2: Summary of commitment concepts/forms of operationalisation
(own illustration based on Schmidt 2013)

Subsequent to the publications of Meyer and Allen (1991, 1997), other authors tried to refine the existing commitment concepts. Probably the most important of these authors is Cohen. A peculiarity of his four-component commitment model is the distinction between “commitment propensity” and “commitment” (Cohen 2007). Cohen states that the former (which exists before a future employee enters an organisation) has an important impact on the development of the latter (after entry to the organisation). However, he did not provide complete measurement scales for his concept.

Various authors built upon the three-component model of Meyer and Allen (1991, 1997) and their notion that it can be expected “that an employee can experience all three forms of commitment to varying degrees” (1991: 68).

These authors analysed individuals' commitment profiles and those of groups with similar commitment profiles (e.g.. Meyer and Herscovitch 2001, Wasti 2005, Gellatly et al. 2006, Somers 2009, Meyer et al. 2012, Stanley et al. 2013, Kam et al. 2016, Meyer et al. 2018).

It would go beyond the scope of this thesis to give an overview of the many other definitions and conceptualisations of "organisational commitment". In the further course of this thesis, the definition of Allen and Meyer (1990: 14) will be used (see above): "Commitment refers to a psychological state that binds the individual to the organisation". For summary overviews of existing definitions, see: Mowday et al. (1982), Moser (1996), Meyer and Herscovitch (2001) and Klein et al. (2009). The decision to use the definition of commitment of Allen and Meyer (1990) for this thesis is supported by the final conclusion of Klein et al., which was based on a multifaceted and detailed analysis of other definitions: "conceptualizing commitment as a bond is most viable in our opinion as it most clearly differentiates commitment from its antecedents, consequences, and related but distinct constructs" (2009: 17).

The antecedents and consequences of organisational commitment are discussed in the next paragraph.

2.2.2. Antecedents, consequences, correlates and foci of commitment

In their meta-analysis, Mathieu and Zajac (1990) analysed various antecedents, correlates and consequences of organisational commitment. Antecedents of organisational commitment are those variables that affect organisational commitment. Organisational commitment is here seen as a dependent variable. If the focus is on the consequences of organisational commitment, organisational commitment is considered to be the independent variable. A third category of variables are those variables where the causal ordering seems to be unclear. These variables are called correlates of organisational commitment (Meyer et al. 2002, Mathieu and Zajac 1990).

While Mathieu and Zajac (1990) focused on attitudinal and calculative commitment, 12 years later Meyer et al. (2002) conducted a meta-analysis which is based on their three-component model of organisational commitment.

Antecedents of commitment: Meyer et al. (2002) analysed the correlations between various variables considered to be antecedents of commitment and the three components of commitment.

Figure 5 presents the key categories of antecedents which were included in their analysis.

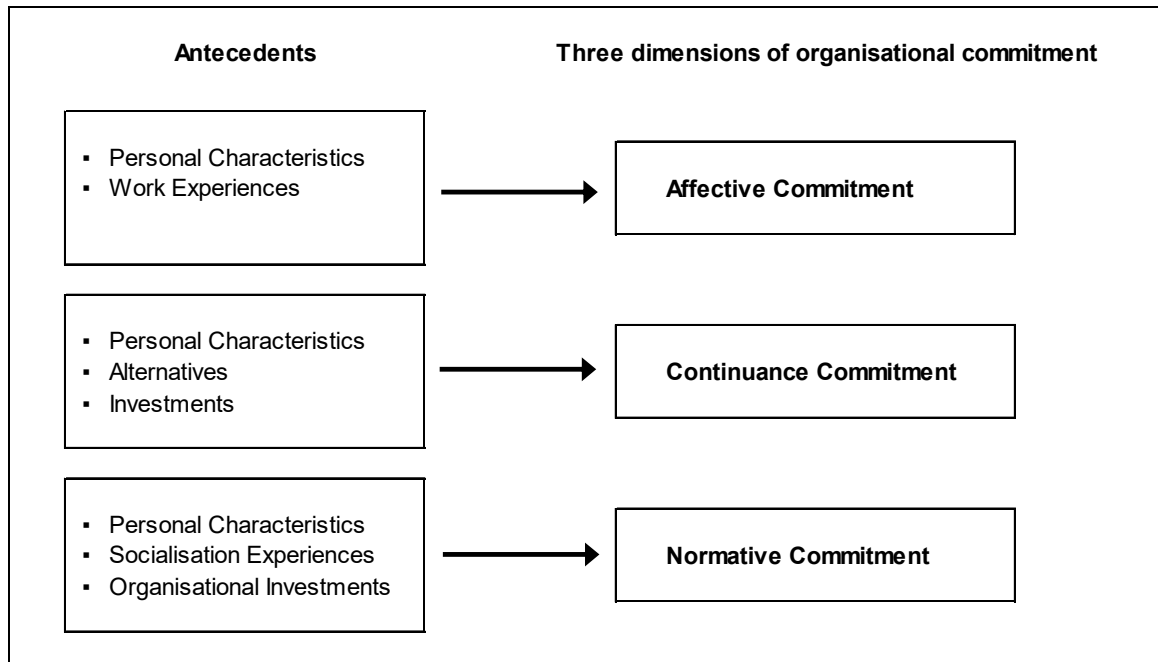


Figure 5: Antecedents of the three dimensions of organisational commitment (own illustration based on Meyer et al. 2002: 22)

For example, Meyer et al. (2002) found out that “age” and work experiences, measured by “organisational tenure” and “position tenure”, correlate positively to a small degree with all three components of commitment. This finding can be explained by the fact that both increasing age and tenure lead to an extension of the period in which a positive work experience can be made that reinforces the bond with the employer, or reduces the attractiveness of alternatives for voluntary turnover. The highest correlation emerged between “organisational support” (as a further part of the operationalisation of “work experience”) and affective commitment (0.63). The correlation between “organisational support” and normative commitment was high as well (0.47), whereas the correlation between “organisational support” and continuance commitment was negative (-0.11). The first two findings can probably be explained in the following way: employees who experience organisational

support may develop a feeling of gratitude to the employer, accompanied by positive emotions (affective commitment) and the perceived normative duty to reciprocate the employer's support (normative commitment). The negative correlation with continuance commitment, however, cannot be understood so easily. (Meyer et al. 2002, provide no explanation for this negative correlation.) A possible explanation might be that employees perceive the organisational support not as an outstanding experience, but as an experience which they may relive with another employer, which means that in this regard there is nothing at stake. The measures of "availability of alternatives", investments in "transferable education" and "transferable skills" turned out to be more highly correlated with continuance commitment than with affective and normative commitment. The negative correlation with continuance commitment indicates that the availability of alternatives and the transferability of investments prevent employees from being confined to the employer.

Consequences of organisational commitment: Meyer and Allen (1997: 25) warn that the "cause-and-effect terminology" has to be used carefully. This is especially the case when cross-sectional research designs are used and not longitudinal ones. In their meta-analysis, Meyer et al. (2002) calculated the correlations (and thus measured relationships, not causal relationships) between the three components of organisational commitment and measures for turnover, turnover intention, on-the-job-behaviour and employee health and well-being.

The correlations between turnover and all three components of commitment were negative. The same applied to the correlations between overall withdrawal cognition (as a measure of turnover intention) and all three components of commitment, but consistently with even higher correlation scores. Affective commitment and normative commitment were both positively correlated with on-the-job behaviour (operationalised by "attendance", "organisational citizenship behaviour (OCB)" and "job performance") and employee health and well-being, whereas continuance commitment was not correlated, or was slightly negatively correlated, with these variables. This last finding regarding continuance commitment reveals its ambiguity: On the one

hand, continuance commitment can strengthen the bond with the employer. On the other hand, employees with high continuance commitment may show on-the-job behaviour which is poorer than the behaviour of employees with high affective or normative commitment: employees with high continuance commitment may feel that they are forced to stay with the employer just to ensure that previous investments will not be lost. Thus, they may feel they are being “locked-in” against their will, instead of being intrinsically motivated to stay with the company and to engage themselves accordingly.

Correlates of organisational commitment: Meyer et al. (2002) focus on “job satisfaction”, “job involvement” and “occupational commitment” as correlates of organisational commitment. Before these and other correlates are explained in more detail and delineated from the construct “organisational commitment”, the findings of Meyer et al. will be presented: The authors posit that “job involvement” and “job satisfaction” are highly correlated with affective commitment and that “job involvement” and “job satisfaction” are highly correlated with normative commitment, but to a lesser extent than with affective commitment, and are only slightly correlated with continuance commitment. For “occupational commitment”, the analysis of correlation was confined to affective commitment which was high.

As previously announced, the next paragraph is devoted to definitions of some correlates and to explanations of how these correlates can be distinguished from “organisational commitment”. Moreover, the role of various foci of commitment is outlined.

Foci of commitment: In contrast to Meyer et al. (2002), many other authors conceptualise “occupational commitment” not as a correlate of organisational commitment, but as a focus of commitment. An employee may not be bonded to the organisation as an entity, but only to his/her specific occupation or job. Reichers (1985: 469) stated that “organizational commitment can be accurately understood as a collection of multiple commitments to various groups that comprise the organization”. Thus, she widens the range of possible commitment targets or foci to people acting in the organisational context.

Meyer and Allen (1997) provide the following matrix (Table 3). They argue that their three-component model can not only be used for the measurement of organisational commitment (first row), but also for other foci of commitment.

<i>Focus of Commitment</i>	<i>Nature of Commitment</i>		
	Affective	Continuance	Normative
Organization			
Top Management			
Unit			
Unit Manager			
Work Team			
Team Leader			

Table 3: An integration of two multidimensional conceptualisations of commitment (Meyer and Allen 1997: 21)

The existence of different foci of commitment raises the issues of a) the relevance of each focus and b) possible interrelations of these foci.

The relevance of a focus depends on the research interest. If the research interest lies in the analysis of “turnover intentions”, “turnover” or “staying intentions”, there is evidence for the assumption that the organisational-commitment focus is the most suitable one (Stinglhamber et al. 2002, Cooper-Hakim and Viswesvaran 2005).

With regard to possible interrelations between these foci, for example, Hunt and Morgan (1994) argue that employees’ commitment to foci within the organisation has reinforcing effects on organisational commitment. From this perspective, the influence of commitment to foci within an organisation on work outcomes is mediated by organisational commitment. In contrast to this, Bentein et al. (2002) posit that another relationship may exist: They stated that the relationship between organisational commitment and organisational citizenship behaviour is mediated by workgroup commitment (as the most proximal focus of commitment in their study). Besides mediating or moderating relationships, conflicting relationships between foci may also exist (Reichers 1985). An example of this is when an employee is personally committed to the

organisation's goals and lived values, but at the same time feels that she/he is being unfairly treated by her/his supervisor. This employee's commitment to the organisation may decrease if the organisation does not intervene to stop the treatment.

Correlates of commitment: Meyer et al. (2002) consider job identification and job satisfaction as possible correlates of organisational commitment. In the following, the relationship between organisational commitment and organisational identification, particularly job satisfaction, is outlined. For the discussion of other correlates, such as "involvement" or "motivation", see: Mathieu and Zajac (1990), Moser (1996), Maihöfner (2013).

Organisational commitment versus identification: Riketta and Van Dick (2009: 71) consider identification as the "closest conceptual neighbor" to commitment, especially to affective commitment. In the context of organisational commitment, they consider it expedient to concentrate on organisational identification (instead of job identification). Riketta (2005: 361) summarises in his meta-analysis that the common ground for the various definitions of organisational identification is that "all these definitions imply that the organizational member has linked his or her organizational membership to his or her self-concept, either cognitively (e.g. feeling a part of the organization; internalizing organizational values), emotionally (pride in membership), or both".

Van Dick (2004) highlights three main differences between organisational identification and organisational commitment: First, organisational identification is stated to be more cognitively oriented. "Identification" is mainly determined by the self-assessment of a person regarding her/his belonging to a social group (here: member of the organisation). This self-defining aspect is not covered by the commitment concept. Second, identification is mainly based on perceived similarities regarding convictions and values between a person and a social group, whereas organisational commitment is regarded as broader. Organisational commitment develops on the basis of an evaluation of all factors that can make a job attractive, including evaluations of exchange-based aspects. Third, commitment is considered to be more stable than identification. Felfe reflects that the relevance of the commitment concept lies

especially in the explanation and prediction of turnover intentions and turnover, whereas the concept of organisational identification is mainly used for analysing privileges of in-groups and disadvantages of out-groups (Felfe 2008: see his detailed juxtaposition of both concepts: 74; also Riketta and Van Dick, 2009, for conceptual overlaps: 71).

Organisational commitment versus job satisfaction: Tett and Meyer (1993: 261) define job satisfaction as “one’s affective attachment to the job, viewed either in its entirety (global satisfaction) or with regard to particular aspects (facet satisfaction; e.g., supervision)”. Mowday and Steers (1979) note that the organisational-commitment construct is aimed at the entire organisation including its goals and values, whereas job satisfaction is limited to the specific job environment. They also assume that organisational commitment turns out to be more stable over time than job satisfaction.

Mathieu and Zajac (1990) report a high correlation between overall job satisfaction and organisational commitment. Tett and Meyer (1993) refer to the satisfaction-to-commitment-mediation model, the commitment-to-satisfaction-mediation model and the independent-effects model: The first assumes that job satisfaction is an antecedent of organisational commitment, with the consequence that commitment mediates the effects of satisfaction on outcome variables. The second assumes the opposite: Organisational commitment influences job satisfaction, with the consequence that job satisfaction mediates the effects of organisational commitments on outcome variables. The third model sees job satisfaction and organisational commitment as related, but distinct, constructs. In the academic literature, there is no consensus regarding the mode of operation (Westphal 2011). This will be taken up in more detail in Chapter 5.2 and in Part A of Appendix 16.

For the purpose of this thesis, the construct of organisational commitment is the construct of choice, not least because it allows the analysis of exchange relationships that go beyond the narrow frame of a specific job environment.

2.3. Theory regarding the “psychological contract”

With regard to the employer-employee relationship, not only “commitment” is considered to be of outstanding importance, but also the “psychological contract”.

2.3.1. Psychological contract: Definition and review of developments

The psychological contract, in the organisational context, has its roots in the 1960s. Argyris (1960: 96) used the term “psychological work contract” to describe a relationship between foremen and employees, in which foremen consider the employees’ needs (“informal culture”, Argyris 1960: 96) and in which they attain good work results in return. In 1962, Levinson et al. (1962: 21) introduced the following definition: “The psychological contract is a series of mutual expectations of which the parties to the relationship may not themselves be even dimly aware but which nonetheless govern their relationship to each other”. Kotter (1973: 92) accentuates the fact that expectations may exist that the parties of the psychological contract are not aware of: “This contract is very different from a legal or labor contract. It may have literally thousands of items in it [...] although the job seeker or new employee may consciously think of only a few.” While Levinson et al. and Kotter base their definition of a psychological contract on mutual **expectations**, a few years later Portwood and Miller (1976: 109) presented a definition based on “**mutual obligations to be fulfilled**”. However, Portwood and Miller diverge from this definition later on in their paper by turning to “expectations”.

Tsui and Wang (2002) classified the psychological contract as one of various possible approaches to the employment relationship. According to them, the employment relationship reflects how an employer tries to manage the relationship with groups of employees (or all employees), whereas the psychological contract is mainly seen from the employees’ perspective and refers to individual views.

Among the first researchers to focus on the concept of the psychological contract between employers and employees was Edgar Schein. His book “Organizational Psychology” was reprinted several times (1965, 1970, 1980). Schein sees the origins of the concept of the psychological contract in texts

about social contracts (1980: see p. 22 for more details and further references). In his work, he puts emphasis on the role of psychological contracts for the behaviour of employees and organisational effectiveness: “It is my central hypothesis that whether people work effectively, whether they generate commitment, loyalty, and enthusiasm for the organization and its goals, and whether they obtain satisfaction from their work depends to a large measure on two conditions: 1. The degree to which their own *expectations* of what the organization will provide to them and what they owe the organization in return matches what the organization’s expectations are of what it will give and get in return. 2. The nature of *what is actually to be exchanged* (assuming there is some agreement) [...]” (Schein 1980: 99). According to Roehling (1997), who gives a concise overview of the origins and early developments of the psychological contract, Denise Rousseau was the most influential researcher in the field of psychological contracts since Edgar Schein. Her article “Psychological and Implied Contracts in Organizations”, published in 1989 (Rousseau 1989), is widely regarded as seminal. Conway and Briner (2006) present four key reasons for this assessment: First, departing from the above-mentioned researchers, Rousseau focuses not on expectations, but on promise-based obligations. In her seminal article, Rousseau defines psychological contracts “as individual beliefs in a reciprocal obligation between the individual and the organization” (1989: 121). In addition to this definition, she points out as a key issue that a promise has been made. Second, in contrast to earlier conceptualisations of a psychological contract, Rousseau underlines the importance of its subjective nature. Third, Rousseau does not consider human needs as the basis on which the psychological contract is formed, but the individual’s perceptions of observable behaviour. Fourth, unlike Edgar Schein, for example (see above), who proposed the match between the expectations of both parties as central for organizational effectiveness and behavioural outcomes, Rousseau argues that violations of the psychological contract are more influential.

Many academic papers were published after Rousseau’s often cited article. Nevertheless, the vast amount of research studies should not avoid the fact that, to date, the concept of the psychological contract still contains

ambiguities. For example, as mentioned above, researchers used different foci of “belief” in their definition of psychological contracts: belief in reciprocal “expectations”, “obligations” or “promises”. It was not until 2008, however, that research was carried out to explore the equivalence of these three foci. Roehling’s (2008: 284) results suggest that the three foci “elicit the same general conceptual or mental framework from participants, meeting at least the minimum threshold requirement for meaningful measurement equivalence”. Nevertheless, he states that, depending on the special research purpose of studies, the use of “expectations”, “obligations” or “promises” in measures of the psychological contract might **not** deliver comparable results. Thus, these foci cannot be used interchangeably.

2.3.2. Forms and content of the psychological contract

Rousseau differentiates four forms of psychological contract (1995: 98) that are formed by the combination of the characteristics of the two features “time frame” and “performance requirements”:

- short-term duration / specified performance terms: **transactional**
- long-term duration / specified performance terms: **balanced**
- short-term duration / non-specified performance terms: **transitional**
- long-term duration / non-specified performance terms: **relational**.

Other researchers differentiate mainly between transactional and relational psychological contracts (Guzzo and Noonan 1994, Millward and Hopkins 1998, Raja et al. 2004). In some publications, even Rousseau herself refers only to these two forms of psychological contract (Rousseau 1990, Robinson et al. 1994). The aforementioned brief characteristics of transactional and relational psychological contracts indicate that these two forms of psychological contract could be seen as the opposite ends of a continuum: on one side, the transactional contract of short-term duration and with specified performance terms and, on the other side, the relational psychological contract of long-term duration without specified performance terms. The following figure depicts further characteristics of the transactional contract and the relational contract and opposes them by taking up the notion of a bipolar continuum.

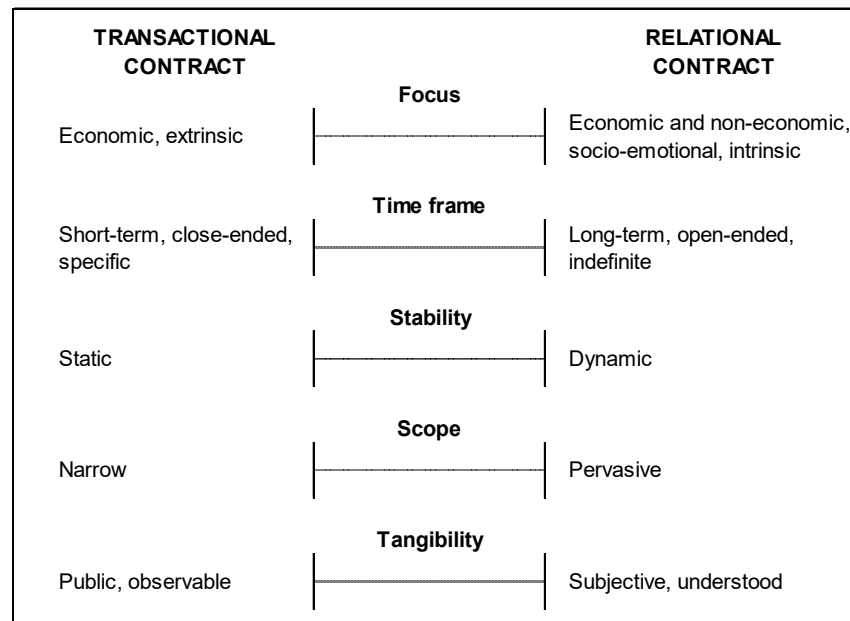


Figure 6: A continuum of contract terms (adapted from Rousseau (1990: 390) and Rousseau and Wade-Benzoni (1994: 467))

As can be derived from Figure 6, the transactional contract can be characterised as an economic exchange in which it is clearly specified and transparent what each party will get for what it gives. As opposed to this, a relational contract also comprises elements that cannot easily be measured, like emotional aspects or intrinsic motivators. This implies that a relational contract is of a more subjective and less specified nature than a transactional contract. Herriot and Pemberton (1996) point out that the two forms of contract should not be distinguished solely by their contents (for example, pay as a content of a transactional contract and loyalty as a content of a relational contract). They emphasise that, in relational contracts, the focus lies on the perception of a balanced exchange *process* over time and not on a strict reciprocal *outcome* at any time.

Despite the subjective nature of a psychological contract (see above), various researchers have tried to explore the content of a psychological contract by quantitative research studies. Rousseau (1990), for example, asked former MBA students to assess, on a five-point Likert scale, to what extent the following seven aspects were considered to be employer obligations: 1) promotion, 2) high pay, 3) pay based on current level of performance, 4) training, 5) long-term job-security, 6) career development, 7) support with

personal problems. The former MBA students were also asked to assess in a similar way to what extent they considered the following eight aspects to be their own obligations towards their employers: 1) working extra hours, 2) loyalty, 3) volunteering to do non-required tasks on the job, 4) advance notice if taking a job elsewhere, 5) willingness to accept a transfer, 6) refusal to support the employer's competitors, 7) protection of proprietary information, 8) spending a minimum of two years in the organisation.

Coyle-Shapiro and Kessler (2002) drew on the list of perceived employer obligations which was provided by Rousseau (1990) and supplemented it. Their list of perceived employer obligations comprised the following 14 elements: 1) job security, 2) good career perspectives, 3) support with personal problems, 4) information on important developments, 5) involvement in decision-making, 6) up-to-date training and development, 7) necessary training to do the job well, 8) freedom to do the job well, 9) policies and procedures that help in doing the job well, 10) support to learn new skills, 11) pay increases to maintain standard of living, 12) fair pay in comparison to employees doing similar work in other organisations, 13) fair pay for responsibilities in the job and 14) fringe benefits that are comparable to employees doing similar work in other organisations.

Whereas Rousseau's list contains two perceived employer obligations that are related to pay, the list of Coyle-Shapiro and Kessler (2002) contains four pay-related elements, including fringe benefits under which an occupational pension scheme offer could be subsumed (although not explicitly stated). Herriot et al. (1997), who used a qualitative research method approach to analyse the content of psychological contracts, explicitly reported that the provision of share-options for all employees was considered to be a perceived employer obligation.

Gough and Arkani (2011) differentiate between the content of relational and transactional psychological contracts: According to them, defined benefit pension schemes can be regarded as a possible constituent part of the *relational* psychological contract between employee and employer. One reason for this view is, that employees may see the employer's provision of a

defined benefit pension scheme as a reward for long tenure. Thus, they may feel especially valued. Moreover, employees might view employers that offer defined benefit pension schemes as being more caring than employers that offer a less attractive defined contribution pension scheme. The latter is characterised by Gough and Arkani (2011) to be a potential element of the *transactional* psychological contract. This assignment is explained by the more short-term and calculative character of defined contribution schemes (detachment of the pension entitlements from the employee's tenure; dependence on the employees' and employers' contributions, which can easily be decreased or stopped; portability).

Interestingly, in the literature, it was obviously never questioned whether occupational pension schemes can be part of the employees' psychological contracts at all when the details of the employees' entitlements are specified in the written employment contract. The basic assumption advocated in this thesis is that this is nevertheless the case. Here, it is argued that employees cannot accurately and comprehensibly evaluate their pension schemes at the beginning of their employment relationship – nor in the later stages of it – due to the complexity of pension schemes (see, for example, Gustman et al. 2005 and Foster 2012, regarding employees' knowledge about their pension schemes). Moreover, there are several uncertainties such as, for example, the period over which the pension is drawn and unpredictable changes in (tax) legislation and in the development of financial markets. Thus, employees will have individual perceptions of their occupational pension scheme. These perceptions form their psychological contracts.

2.4. Interrelation between 2.2. and 2.3. and relevance for the research question

Millward and Hopkins (1998: 1533/1534) stated that “it might be argued [...] that the psychological contract is merely a model of organizational commitment by another name”. They reason this because of the similarity between the transactional orientation of the psychological contract and the calculative type of commitment, on the one hand, and the similarity between the relational orientation and the affective/attitudinal type of commitment on the other hand. In their general model of workplace commitment, Meyer and Herscovitch (2001) say that the psychological contract might also effect normative commitment (in the same vein: Meyer and Allen 1997: 61). This view is congruent with the view of a psychological contract as reciprocal obligations to which the contracting partners feel obliged to adhere.

Some authors emphasise that the state of the psychological contract, and especially an employee’s perceived contract breach, has repercussions for the employees’ organisational commitment. Guzzo et al. (1994) posit that the state of the psychological contract mediates the relationship between organisational practices and the bond between the employees and the employer. In this regard, the employer’s fulfilment of the psychological contract is essential: “The fulfillment of the psychological contract, in both transactional and relational terms, influences employee loyalty and commitment” (Guzzo and Noonan 1994: 452). Other researchers contended that a perceived contract breach may lead to lower commitment (e.g. Bunderson 2001).

Guest and Conway (2002) reported that, in their survey of 1,306 senior HR managers who were members of the Chartered Institute of Personnel and Development (CIPD, a British professional association for human resources management professionals), 36 % answered that their organisation actively used the psychological-contract concept to form the relationship between the organisation and the employees.

Figure 7 depicts the relevance of the psychological contract as an HR tool for both recruiting and retention management.

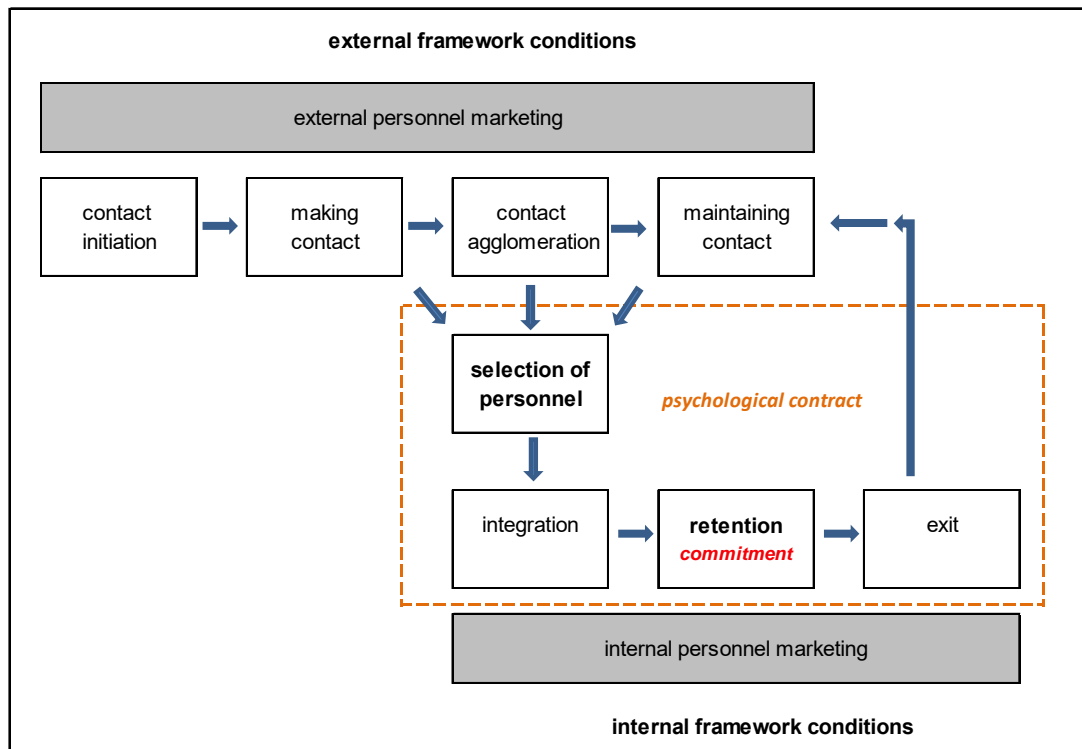


Figure 7: Bringing together the employer's (personnel marketing) and the employees' (psychological contract and commitment) perspectives of the employment relationship (own illustration, extending the figure in DGFP 2006: 33)

The psychological contract already begins to develop before the final entry of the job applicant into the organisation (de Vos et al. 2003). The status of the contract, however, is likely to change over time; that is, with the increasing tenure of the employee. The perceived fulfilment of the psychological contract might have repercussions for the employee's commitment to the organisation. Organisational commitment, in turn, serves as a central retention factor, as outlined above.

To conclude, the concept of the psychological contract serves, for various reasons, as one of two basic theoretical foundations for the research of this thesis: First, this concept seems to be adapted to focus on the employees' perspective. Second, the concept of the psychological contract is not only relevant for understanding why employees accept job offers, but also for understanding employees' behaviour in the course of the employment relationship (e.g. the decision to stay). Third, the practical application of the

concept might help to improve employers' external and internal personnel marketing activities.

The second theoretical foundation is the concept of commitment, which has been equated with retention management. Thus, it is of outstanding importance for answering the research questions of this thesis. Researchers such as Malhotra et al. (2007) have confirmed that fringe benefits (under which pension schemes can be subsumed) play a significant role in increasing employee commitment and thus might strengthen the bond between the employee and the employer.

Chapter 3 will examine the approach to research and the research methods of the study.

3. Research questions and research approach

Based on the findings of other researchers with regard to the role of occupational pension schemes in attracting and retaining employees – these findings have been presented in Chapter 2 – this third chapter, in a first step (Chapter 3.1), will reveal several research gaps. Then it will be outlined how these gaps can be filled. This will be done by formulating an overarching research question and four sub-questions. In a second step (Chapter 3.2), the methodology for answering the research questions is outlined.

3.1. Research gaps and research questions

As has been shown in Chapter 2, the number of empirical studies dealing with the role of occupational pension schemes as a human resources management tool is sparse. This is not surprising because the subject area of pensions is very complex and relates not only to human resources management, but also to labour law, tax and finance. Moreover, even within the area of human resources, there are a myriad of factors that might influence one's choice of an employer or that might contribute to developing commitment to an organisation apart from its offer of occupational pension schemes. This makes it difficult to separate the impact of single factors. Predicated on the literature review in Chapter 2, the next paragraph aims at identifying the research gaps which still have to be bridged.

It is not only the slight number of empirical studies, as stated above, but also the research approach of these studies that supports the assertion of existing research gaps. **First**, the literature review contains only two studies with findings for Germany (Rabe 2007, Jasper et al. 2014). Due to great differences in the regulatory framework of occupational pension schemes, which do not even exist between American and European countries but which still exist within Europe (Holzmann and Koettl 2011, Guardiancich 2016, OECD 2017), it is doubtful if the findings of research conducted in other countries are transferable to Germany. **Second**, as highlighted by Steel et al. (2002), Loan-Clarke (2010) and George (2015), the reasons why employees stay with their companies is not the converse of what prompts them to leave. This caveat

applies to several approaches which focus on the calculation of probabilities for voluntary turnover (e.g., Ippolito 1987, Lazear and Moore 1998, Luchak and Pohler 2010), one of the two above mentioned German studies can also be subsumed here (Rabe, 2007). Instead of calculating probabilities for leaving, it might be more expedient to analyse whether pensions tie the employees more closely to the employer by strengthening the employees' commitment to the organisation. In 2001, Luchak and Gellatly explicitly tried to fill this research gap. However, here too, this study was not conducted in Germany (Luchak and Gellatly 2001). **Third**, the literature review has shown that the research findings do not provide a homogenous picture of the role of occupational pension schemes for employees. To some extent, the findings of a number of studies seem to be contradictory or at least inconsistent. For instance, the postulated value of occupational pensions as a tool for attracting employees differs largely between the respective studies (e.g., Loretto et al. 2000, Loretto et al. 2001). This may result from differently composed target groups or from different contexts in which the studies were conducted. With regard to commitment as the central construct for employee retention, Haase (1997) identified the lack of recognition of both the organisational context and the individual interpretations of organisational structures as the main research deficiencies. In this regard, he even criticises Meyer and Allen for having based their findings on a database with data from very different organisations. **Fourth**, the question of how the role of the occupational pension scheme differs between men and women, or between various age groups, seems to be under-researched. The literature review contains only two studies which explicitly focus on women (Gough 2004, Foster 2012). There are no studies in it where possible age-specific differences are analysed in any depth. **Fifth**, as far as is known, there is no single research study, in Germany or anywhere else, that has a holistic and comprehensive view of the role of occupational pension schemes in attracting and retaining employees in that a) pensions are the key focus (and not only a side aspect within the subject area of human resources management), b) the perspectives of the employer and the employees are brought together within the same organisational context and c)

the research approach permits both quantifications and the in-depth analysis of subjective interpretations.

To overcome the shortcomings in previous research and to close the disclosed research gaps, the following **research question (RQ) and five sub-questions (RQ_1 to RQ_5)** are defined as guidelines for the research of this thesis:

What is the relevance of occupational pension schemes for the employment relationship in Germany?

The focus on Germany will close the **first research gap**.

RQ_1: How important is the occupational pension scheme for employees with regard to their decision to accept a job offer?

RQ_2: To what extent does the employees' satisfaction with the occupational pension scheme translate into continuance, affective or normative commitment?

RQ_3: To what extent is the occupational pension scheme relevant to the employees' decisions to stay with their employer?

RQ_2 and RQ_3 will close the **second research gap**.

RQ_4: To what extent do the findings for RQ_1 to RQ_3 differ between men and women or between young and old employees?

RQ_4 will close the **fourth research gap**.

RQ_5: How do the employees assess the fulfilment of that part of their psychological contract that is related to the occupational pension scheme and how might perceived contract breaches affect the employees' organisational commitment?

RQ_1 through to RQ_5 will close the **third research gap** in that they will be answered in the context of a single organisation.

RQ_1 through to RQ_5 will close the **fifth research gap** because, in their entirety, they will provide the requested holistic and comprehensive view.

The research questions will partly be answered by testing hypotheses. These hypotheses are formulated and tested in Chapter 5. The purpose of this

research is to gain a deeper understanding of the relevance of occupational pension schemes for the employment relationship. This includes an analysis of whether occupational pension schemes are valued by employees, by which groups of employees they are valued, in which context and, thus, whether they can be seen as a promising human resources management tool for attracting and retaining employees in Germany. Thus, the findings will not only contribute to theory but also to practice.

The contribution to theory will be the closure of the five research gaps defined above. This is discussed in detail in Chapter 5.7.

The contribution to practice is outlined in Chapter 6.2. The contribution is threefold and can briefly be summarised as follows: First, this thesis provides a blueprint for analysing the role of occupational pension schemes for the employment contract in a multi-faceted and comprehensive way. Second, as far as is known, there is no other empirical study in which the relevance of the occupational pension scheme is analysed for every stage of the employment relationship and from which recommendations for every stage are deduced. Third, by providing a kind of roadmap, it is shown how possible barriers to a successful implementation of these recommendations can be hurdled.

After having introduced the research gaps and the research questions in Chapter 3.1, the methodology for answering these questions will be described in Chapter 3.2.

Chapter 3.2 is structured as follows: Chapter 3.2.1 will show that the research approach is informed by the author's post-positivist worldview. Based on this, it will become evident in Chapter 3.2.2 that the author of this thesis is not a proponent of the so-called incompatibility thesis: it is shown that a mixed method approach will be the most appropriate approach for answering the research questions. In Chapter 3.2.3, it is reasoned why a single case study is chosen. Concerns about case study research published in academic papers are addressed in order to ascertain at an early stage that the research for this thesis is conducted with rigour. In Chapter 3.2.4, the research approach is specified as a cross-sectional study. Chapter 3.2.5 contains the techniques and procedures of the research approach. Thus, it is described, in a detailed

manner, when, where, how and what questions were posed. All these decisions are reasoned. These details are presented separately for the quantitative and qualitative parts of the research approach. It is also demonstrated that ethical considerations were allowed for. Chapter 3 will close with a summary of all questions posed and of how they relate to the research questions (Chapter 3.2.6). Contrary to what might be expected, a separate section for the discussion of the validity and the reliability of the research is not presented in Chapter 3, but at the end of Chapter 4.

3.2. Methodology

In this section, the methodology for the empirical research for this thesis is outlined by referring to the five tiers of Figure 8.

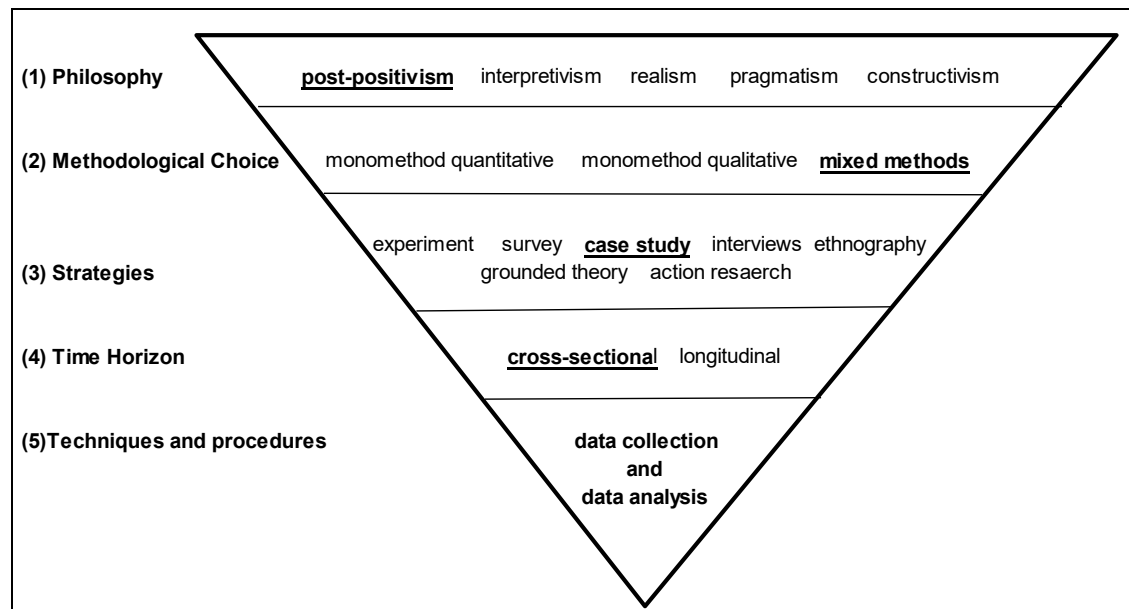


Figure 8: The research pyramid (own illustration which draws on the research “onion” of Saunders et al. (2012: 128))

Figure 8 depicts five tiers which require determinations of the researcher on his/her way to find answers to his/her research question. These tiers form an upside-down pyramid aiming to illustrate that the determinations, which are made at an early stage in the research process, both inform the next steps and narrow down the possibilities of proceeding. The words in bold indicate the determinations which were made for the empirical research carried out for this thesis.

3.2.1. Philosophy

The first tier enumerates various “philosophies” such as post-positivism, interpretivism, realism, pragmatism and constructivism. The empirical research for this thesis was guided by the post-positivist worldview. This will be explained in more detail in the course of this chapter.

In this thesis, the terms “philosophies”, “philosophical worldviews” and “paradigms” are used interchangeably. They are defined as the aggregation of the researcher’s epistemological, ontological, and methodological premises (Denzin and Lincoln 2008 and, similarly, Burrell and Morgan 1979). These three parts of the definition require further definitions: a) “ontology” can be described as “the philosophical assumptions about the nature of reality” (Easterby-Smith et al. 2008: 60); b) “epistemology” is seen as the theory of knowledge (“knowledge about knowledge”, Johnson and Duberley 2000: 2) insofar as it refers “to a stance on what should pass as acceptable knowledge” in a special field (Bryman 2016: 690); and c) “methodology” is defined as “the strategy, plan of action, process or design lying behind the choice and use of particular methods and linking the choice and use of methods to the desired outcomes” (Crotty 1998: 3).

In the natural sciences, the **positivist philosophical worldview** was initially the prevailing one (Guba and Lincoln 1994). The term “positivism” is often ascribed to the French philosopher, Auguste Comte, who lived from 1798 to 1857 (Halfpenny 1982, Crotty 1998). In his speech “Discours sur l’esprit positif” (Comte 1844), Comte described five different meanings of the word “positive”. For him, the word “positive” indicates, for example, that positive science strives after certainty and precision. Crotty (1998: 20) stresses that positive science could be characterised as being “grounded firmly and exclusively in *something that is posited*” and that the “basis of this kind of science is direct experience, not speculation.”

This citation shows that positivism has roots in empiricism which is one of two forms of foundationalist epistemologies (Phillips and Burbules 2000). The other form is rationalism. A key advocate of rationalism was René Descartes (1596-1650), while key advocates of empiricism included Francis Bacon (1561-1626),

John Locke (1632-1704) and David Hume (1711-1776; for details, see Van de Ven 2007). Reichenbach (1948: 333) differentiates as follows: “What distinguishes the rationalist from the empiricist is the doctrine that there are some fundamental truths controlling physical reality which reason, and reason alone, can find out“. Nevertheless, rationalists accept that experiences could support knowledge construction. In turn, empiricists accept that rational thoughts could enhance knowledge that was predicated upon experiences. However, they argue that the basic building blocks of knowledge (for example, what colours look like) can solely be known by having experienced them (Phillips and Burbules 2000).

As with the empiricists’ notion, positivists hold the view that “reality” is the empirical world which is perceptible to the senses (Blaikie 2007, *relates to ontology*). Therefore, they reject the abstract and the metaphysical. Reality is “External, objective and independent of social actors” (Saunders et al. 2012: 140). Positivists argue that credible data can only be derived from observable phenomena (Johnson and Duberley 2000, Saunders et al. 2012) and that the researcher plays a distanced and impartial role in the data-collection process (Creswell and Plano Clark 2011; *relates to epistemology*). Thus, it is asserted that data are collected objectively and are unbiased. Other common assumptions include (*relates to methodology*): Concepts need to be operationalised in ways that allow quantitative measurement; research progresses through verified hypotheses; it is intended to select samples of sufficient size in order to enable the researcher to make generalisations to the wider population (Guba and Lincoln 1994, Easterby-Smith et al. 2008).

According to Johnson and Duberley (2000: 41), an important distinction between positivism and empiricism can be seen in the positivists’ concern “to test theory against empirical observation”. This concern is also central to logical positivism and finds its expression in the criterion of verifiability which postulates that something is meaningless unless it can be empirically verified (Ayer 1936). It was the so-called Vienna Circle that promulgated the ideas of logical positivism during the 1920s and 1930s (Halfpenny 1982, Crotty 1998, Johnson and Duberley 2000).

The positivist worldview has been considered as the worldview that informs research in the natural sciences. Positivist research designs have often been equated with quantitative data-collection models. Nowadays most quantitative-oriented researchers attribute their work as post-positivist, which can be seen as an adaptation of positivism based on Popper's falsification argument (Crotty 1998, Johnson and Duberley 2000, Johnson and Gray 2010). Popper argued that it is not possible to verify hypotheses by empirical research. Instead, it is only possible to falsify theories empirically (Popper 1963).

Racher and Robinson (2003: 468) summarise the transition from positivism to post-positivism as follows: "Most researchers have by now rejected the early premises of positivism as they have come to recognize that a single true reality is not apprehensible, that the objective and subjective realities are not mutually exclusive, that there is no absolute source of knowledge, that findings cannot be proven to be true, and that inquiry is not value-free".

With the growing dissemination of qualitative research designs, the dominance of the positivist worldview and also the post-positivist worldview, diminished (Morgan 2007). In Germany, the word "Methodenstreit" was coined for an academic debate in the second half of the 19th century, which focused on the question of whether or not the research methodology used in the natural sciences was suited for the social sciences as well (Baert 2005). Those researchers who answered this question negatively advocated that research in the social sciences should not be informed by a positivist worldview, but rather by other worldviews such as pragmatism or interpretivism (Hughes 1990, Schwandt 1994, Goldkuhl 2012).

"Very commonly, the positivistic or conventional paradigm was seen to designate the quantitative approach and the interpretive paradigm, the qualitative approach" (Niglas 2010: 217). In the literature, there is a controversy regarding the question of whether or not paradigms such as positivism and interpretivism are incompatible, or in other words, whether Kuhn's incommensurability thesis (Kuhn 1996, first published in 1962) is right or wrong (Howe 1988, Hammersley 1992, Johnson and Duberley 2000, Johnson and Onwuegbuzie 2004). The thesis of incommensurability, or

incompatibility, means that it is inappropriate to mix quantitative and qualitative research methods “due to fundamental differences (*incommensurability*) between the paradigms [...] supposedly underlying those methods” (Tashakkori and Teddlie 2010: 8).

Several authors, however, posit that **pragmatism** might be the worldview that reconciles the incompatibility thesis and, thus, that it is the worldview which might be best suited for mixed-methods research designs (Morgan 2007, Johnson and Onwuegbuzie 2004, Onwuegbuzie et al. 2009). This might be one of the reasons for the renewed attention that social researchers are paying to pragmatism (Rochberg-Halton 1987, Morgan 2014). The roots of pragmatism go back to the 19th century and are closely connected with Charles Sanders Peirce, William James and John Dewey to name just some of the most influential authors (Ormerod 2006, Morgan 2014).

Easterby-Smith et al. (2008: 76) point out that a “central theme of pragmatism is that in the social world there are no pre-determined theories or frameworks that shape knowledge and understanding. Essentially, any meaning structures, which get developed, must come from the lived experience of individuals”. With regard to ontology, pragmatists do not deny that there is a reality detached from human experiences, but they argue that reality can “only be encountered through human experience” (Morgan 2014: 39). Consequently, and in line with the quote from Easterby-Smith et al. (2008) with regard to epistemology, pragmatists hold the view that knowledge develops through experience. This contrasts with the concept that knowledge is defined by what is true (Morgan, 2014). Looking at methodology questions, pragmatists focus on finding answers to the following question without being bound to predetermined theoretical concepts: What is the most suitable way to get answers to my research question (Goles and Hirschheim 2000, Creswell 2007, Morgan 2014)? Biesta (2010: 96) even argues that pragmatism should not be seen as one of several philosophies, “but rather as a set of philosophical tools that can be used to address problems”.

In the recent past, the academic debate in the field of the philosophy of science culminated in the question of whether it was necessary for researchers

to adopt a certain philosophical stance (e.g. Saunders et al. 2012). This question, however, is obviously not meant to scrutinise whether or not researchers could completely edit out the field of the philosophy of science. It is uncontested that researchers have to be explicit about their philosophical stance. What is controversial, however, is the question if it is possible to adopt parts of various philosophies in one and the same research design. This latter question is especially relevant for mixed-methods research designs. Creswell and Plano Clark (2011), for instance, make it clear that they embrace the stance that multiple worldviews may guide research design. They use the example of a research design which starts with a survey, followed up by qualitative focus groups. According to Creswell and Plano Clark (2011), in this case, the researcher switches implicitly from the initial post-positivist worldview to another worldview such as constructionism.

Johnson and Gray (2010) point out that one of the fathers of pragmatism, Charles S. Peirce (1839-1914), coined the phrase “synechism” for the stance that everything has to be seen as a continuum rather than as a dualistic form. Teddlie and Tashakkori (2009) took up this old stance and assembled the following aspects of a research design as a multitude of continua:

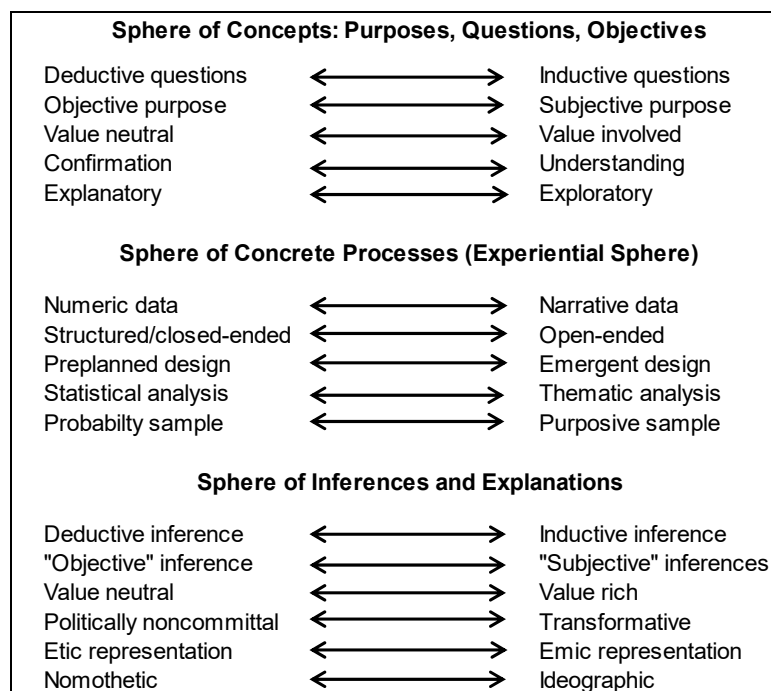


Figure 9: Multidimensional continuum of research projects
(Teddlie and Tashakkori 2009: 95)

Teddlie and Tashakkori (2009) posit that researchers with a focus on quantitative research would see themselves as being closer to the left-hand side of the various continua and researchers with a focus on qualitative research would see themselves as being closer to the right-hand side.

Greene and Caracelli (1997) are proponents of the dialectical thesis and demonstrate the meaning by using the paradigms of interpretivism and post-positivism. They argue that both paradigms are in some aspects logically incompatible, but that there are sets of characteristics of these paradigms that might enrich the findings of the research (“more dialectically insightful”, Greene and Caracelli 1997: 13) when they are both considered for the research design.

This proposition continues in the next Chapter 3.2.2 which deals with the methodological choice of a mixed methods approach for this thesis. It will be shown that this choice implies that the author combined elements from the left-hand side of Figure 9 (for example, deductive questions and numeric data in the quantitative part) with elements from the right-hand side of that figure (for example, narrative data in the qualitative part that are aimed at a better understanding of the numeric data). Thus, the qualitative part is not seen as being a contraction to the post-positivist stance (which governs the quantitative part of this thesis), but as an enrichment of it. That this was really the case is demonstrated in Chapter 5 where the findings of the quantitative and the qualitative part are discussed jointly. Such an elaborate mixed-methods research design contrasts with the pragmatic worldview that is grounded on the assumption that the research approach might be minimalistic as long as the outcome is something “that works”. To sum it up, it is seen as strength of this thesis that this mixed methods approach allows not only a post-positivist hypothesis-testing but also a deeper understanding of what the questions or concepts under investigation mean for the respective actors/respondents.

3.2.2. Methodological choice

As delineated in Chapter 3.1., the overarching aim of this research is to gain a better understanding of the role of occupational pension schemes for employees in Germany, especially with regard to the employees’ decisions to

accept a job offer and with regard to their intention to stay within their company. In Chapter 3.1., it was further delineated that a mixed method approach is considered to be the best approach for achieving this aim.

Johnson et al. (2007) provide the following definition of mixed methods research after having analysed 19 different definitions of key researchers in this field: “Mixed methods research is the type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches (e.g., use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the broad purpose of breadth and depth of understanding and corroboration” (Johnson et al. 2007: 123). This definition was published in the second number of the first volume of the *Journal of Mixed Methods Research*, which was launched in 2007, that is, just a decade ago. With regard to Germany, even in 2014, Kuckartz posited that mixed methods research was still in its early stages (Kuckartz 2014), although in the international research community mixed methods research has a history of several decades (for a detailed overview of the stages of development of mixed methods research, see, e.g., Creswell and Plano Clark 2011).

In an often cited article, Greene et al. (1989) describes, in a simplifying way, “quantitative” as “designed to collect numbers” and “qualitative” as “designed to collect words” (Greene et al. 1989: 256; for more detailed characterisations of “Quan” and “Qual”, see, e.g., Bryman 2016, Saunders et al. 2012). The reason why their article became influential was that the authors were among the first who tried to structure the purposes of mixing qualitative and quantitative research. In the meantime, several other propositions have been made for categorising the research in this field. Creswell and Plano Clark (2011), for example, stated that every researcher had to determine four key aspects while striving towards the most appropriate mixed methods research design: a) the level of interaction between the quantitative and qualitative strands, b) the priority of the quantitative and qualitative strands, c) the timing of the quantitative and qualitative strands and d) e where and how to mix the quantitative and qualitative strands.

Predicated on various combinations of these determinations, Creswell and Plano Clark (2011) developed six prototypical versions of mixed methods research designs, of which the first four designs are depicted in Figure 10 (the missing two are considered less important here):

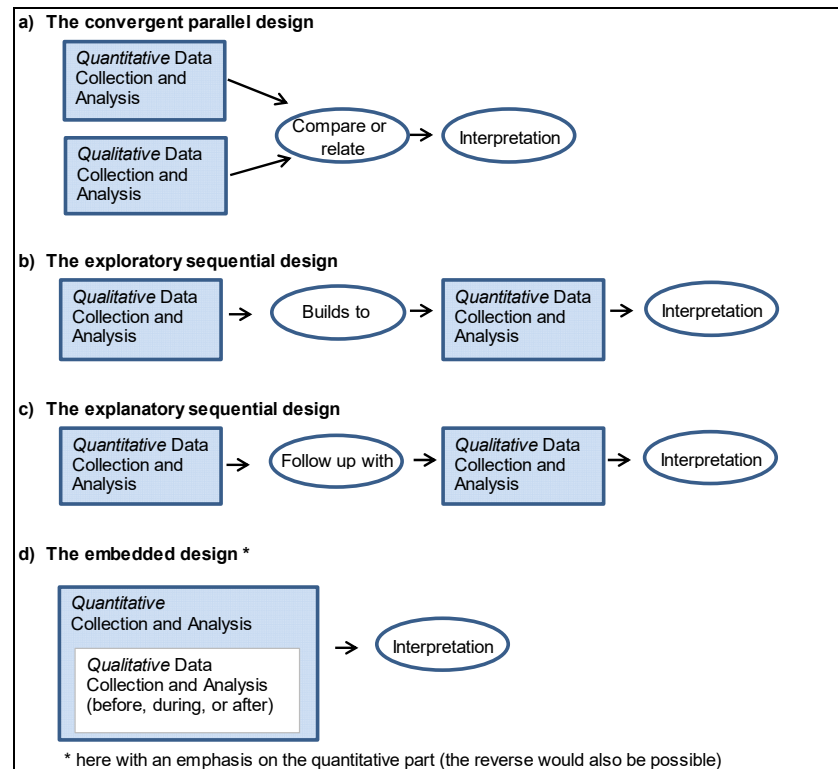


Figure 10: Prototypes of major mixed methods research designs

(own illustration as an extract from a figure in Creswell and Plano Clark, 2011, pp. 69/70; the transformative design and the multiphase design are not depicted here)

Although in the **convergent parallel design** (a) the quantitative and the qualitative data collection are conducted independently and more or less simultaneously, in the next two designs the quantitative and qualitative parts are related and conducted sequentially. In the **exploratory sequential design** (b) the emphasis lies on the qualitative analysis. The results of this part are also used to derive the basis for the quantitative part which serves the purpose of testing or generalising the findings from the initial qualitative part. The **explanatory sequential design** (c) starts with the quantitative part, which is also seen as the priority part. The following qualitative part is used for a better understanding, or for verification, of perhaps surprising findings from the quantitative part.

For this thesis, the **embedded design** (d) was used in the version that is depicted in Figure 10: the quantitative part is the dominating one. Similar to the explanatory sequential design, the qualitative data were mainly collected after the quantitative part in order to get a better understanding of the findings of the quantitative part. Therefore, the design of the qualitative part in this thesis was informed by findings from the quantitative part. For instance, the results of the quantitative part had shown that the answers to the following Likert-scale items were very similar: 1. "On the occasion of my employment, Company_Z pledged itself to provide me with a market-compliant occupational pension scheme." 2. "Company_Z has actually provided me with a market-compliant occupational pension scheme." (It has to be pointed out here that Company_Z is the company in which the empirical research was conducted, see Chapter 4.1). Hence, this finding was taken up in the following qualitative part, not least because the two items of the quantitative part already mentioned were basic items with regard to the psychological contract.

The main reason for the choice of an embedded design is that it fits very well with a case-study approach (Creswell and Plano Clark 2011). In a case study, data collection typically does not exclusively take place in a sequential way. Instead, this research approach implies that further data may be collected if preliminary findings give a point to it (Eisenhardt 1989, Hartley 2004). In this thesis, the emphasis lies on the quantitative part because important aims of the empirical research are the measurement of variables or scales (e.g., importance of occupational pension schemes for accepting the job offer), the measurement of relationships (e.g., between the valuation of occupational pension schemes and commitment) and enabling an analysis of whether assumed differences between groups of respondents are significant or not (e.g., gender-dependent differences in the valuation of occupational pension schemes). Nevertheless, the qualitative part is of great value for the analysis of subjective interpretations and for a deeper understanding of issues.

At this point, it can be summarised that the four key aspects of a mixed methods research design, as introduced on page 54, were determined as follows: a) level of interaction between the quantitative and qualitative strands: interactive, not independent, b) priority of the quantitative and qualitative

strands: priority on the quantitative strand, but high relevance of the qualitative strand as well, c) timing: embedded design and d) where and how to mix both strands: interactive (see a), mixing partly occurs already at the design phase.

Ethics approval for the mixed methods research approach for this thesis has been granted by the Chair of the Humanities, Social and Health Sciences Research Ethics Panel at the University of Bradford on 28/11/2014 (see Chapter 3.2.5 for measures that were taken to guarantee compliance with ethical standards, such as informed consent, etc.).

3.2.3. Strategies

As has already been frequently referred to, a case-study approach was chosen. A case study “is an empirical method that investigates a contemporary phenomenon [...] in depth and within its real-life context, especially when the boundaries between phenomenon and context may not be clearly evident” (Yin 2018: 14). Contrary to what Figure 8 (“The research pyramid”) may suggest, the choice of a case study approach does not exclude the possibility of conducting surveys or interviews within the case study approach. On the contrary, Yin (2003) considers the use of multiple, and not singular sources, as a constituent element of case-study strategies. As will be delineated in more detail in Chapter 3.2.5 (“Techniques and procedures”), an online survey will be the core element of the quantitative part and interviews (especially with employees) will be the core element of the qualitative part. Other data sources will be organisational data such as annual reports or written information about the occupational pension scheme of Company_Z. The richness of possible data sources is seen as the great strength of a case-study approach for answering the overarching research question.

In this case study, the unit of analysis is Company_Z. It will be reasoned in Chapter 4.1, why Company_Z seemed to be an ideal unit for the research (see page 78). In the following, it is outlined why a single-case study approach was chosen and not a multiple-case study. Yin (2018) offers five possible reasons for single-case designs. According to him, a single-case design might be reasonable if a) the single case represents a critical case, b) the single case represents an extreme or unique case, c) the single case is the representative

or typical case, d) the single case is a revelatory case or e) it is the aim to conduct a longitudinal study. The reason for choosing a single case for this thesis is a kind of mixture of c) and d), although this might, *prima facie*, seem to be contradictory. On the one hand, the case of Company_Z is a typical case because it is a company with a long tradition in providing its employees with old-age provision. Moreover, in the financial industry in Germany, and especially in the larger companies, entitlements to occupational pension schemes are widespread. In 2012, about 89 % of employees of companies within the financial industry with more than 1,000 employees (such as Company_Z) have entitlements to occupational pension schemes (Statistisches Bundesamt 2015). What makes the case revelatory is that Company_Z changed its pension system in 2004 from a defined benefit scheme to a defined contribution scheme with guaranteed minimum payments. This constellation offers the chance not only to analyse the relevance of occupational pension schemes for employees in general, but also to examine the question of whether the change of the scheme had an impact. For this thesis, the in-depth analysis within one company (which includes several aspects which are presented in Chapters 4 and 5) had priority over a broader, but probably less profound, analysis of more than one case.

There is no intention to conceal the fact that several authors have emphasised that case-study research is confronted by major concerns (Flyvbjerg 2006, Miles 2015, Yin 2018). Table 4 categorises the concerns expressed by Fleyberg (2006) and Yin (2018).

The first column of Table 4 (see below) shows the respective category of the concern; the second and third columns show the specific concerns of both authors and the fourth column indicates where in this thesis the concerns are refuted or mitigated.

Concerns/ misunderstandings	Yin (2018)	Flyvbjerg (2006)	Mainly discussed in:
1) Quality of research design	lack of rigor	tendency to confirm the researcher's preconception	Chapters 3, 5.5 and 6.4
2) Possible research aims	unlike experiments cause and effects can hardly be tested	most suitable for generating hypotheses (not for testing hypotheses and theory building)	Chapters 3, 5 and 6.4
3) Relevance of possible results a) possibility of generalisations b) context-dependence	no possibility of generalisations from a single case; scientific generalisations are not possible	no possibility of generalisations from a single case theoretical (context-independent) knowledge is preferable to practical (context-dependent) knowledge	Chapters 5 and 6.4
4) Presentation of results	results are presented inadequately	problems in summarising specific cases	Chapters 4, 5 and 6.4

Table 4: Concerns/misunderstandings about case-study research
own illustration, predicated on Flyvbjerg (2006) and Yin (2018)

As can be derived from Table 4, in this methodology chapter, the first two categories of concerns are addressed: 1) quality of research design and 2) possible research aims.

In category 1), the following measures were taken to secure a high quality of research design: First, the design is based on a thorough literature review. Second, the draft of the design was discussed with experts in the field of old-age provision, the head of the market-research department of Company_Z and the academic supervisor of the author of this thesis. This was considered especially important in order to challenge the author's possible preconceptions. Third, the rigour of the research design was accounted for by using checklists and schedules throughout the research process, as recommended, for example, by Stake (1995). Fourth, it contributes to the rigour of the research to be aware of the caveats and to deal with them accordingly.

In category 2), concerns relating to possible research aims were considered by the author of this thesis in the process of determining the final research question. Since the aim was not to test causes and effects, Yin's (2018) concern is irrelevant for this thesis. Flyvbjerg's (2006) assertion that case

studies are most suitable for generating hypotheses, but not for testing them, will be contested in Chapter 5.

3.2.4. Time horizon

The study for this thesis is a cross-sectional study and not a longitudinal one. Nevertheless, it was possible to allow for more than just one generation of Company_Z's occupational pension schemes.

3.2.5. Techniques and procedures

As already indicated, the core element of the quantitative part is an online-survey and the core element of the qualitative part consists of interviews, especially with employees. In this paragraph, it will be outlined how the survey and the interviews were prepared, for what purpose the questions were posed and from where the questions were derived. These explications start with the online survey due to its priority within the embedded case-study design (see page 56).

a) Online questionnaire

Table 5 gives an overview of the structure of the online questionnaire.

Content of the questions of the online survey	
1)	Importance of various aspects for accepting the job offer
2)	Satisfaction with various aspects of the current occupational situation
3)	Items for the Organisational Commitment Scale (OCS-Q)
	plus one item related to staying intentions
4)	Item battery covering various topics, among others:
	- two items related to the psychological contract
	- self-assessment of levels of information (e.g. portability of pension entitlements)
	- attractiveness of other forms of old-age provision
	- relevance of occupational pension scheme for accepting the job offer
	- relevance of occupational pension scheme for staying
5)	Choice: pay rise versus additional employer contribution to pension scheme
6)	Control question
7)	Voluntary employee contributions?
8)	Feeling of being informed of various occupational aspects
9)	Knowledge of the variants of the own occupational pension scheme
10)	Statistics (e.g. age, gender, tenure, education, etc.)

Table 5: Overview of the content of the online questionnaire

The original version of this questionnaire was written in German (Appendix 8). For this thesis, the invitation e-mail and the entire questionnaire were translated into English (Appendices 9 and 10).

Question 1 directly relates to **RQ_1**: The respondents were directly asked about the importance of various aspects of their decision to work for Company_Z. The list of aspects comprised 15 items which were derived from relevant literature (Schleiter and Armutat 2004, Berthon et al. 2005, Ballhausen et al. 2014) and which have already been partly used in a pilot study by the author of this thesis.

The employees had to assess, on a five-point Likert scale, to what extent the listed aspects were important to them. The end points were labelled “not at all important” and “very important”. The reason for using a *five-point* Likert scale in this question and in further questions was that the market-research department of Company_Z wanted the scales to be homogenous and comparable to the scales they used in their own employee surveys.

One of these 15 predefined aspects was the design of the pension scheme. Thus, **Question 1** allows both an assessment of the *absolute* importance of the occupational pension scheme for the decision to accept the job offer of Company_Z and its *relative* importance (as compared with other aspects).

The respondents had the chance to add up to two further aspects if they felt that the list of answers provided was incomplete.

Question 2 looks quite similar to Question 1 because the answer categories were intentionally made, to some extent, to be identical to those of Question 1. Here the employees were asked to assess their satisfaction with the listed 13 aspects on a five-point Likert-scale with a range from “not at all satisfied” to “very satisfied”. Again, the respondents could add a maximum of two more aspects to the given ones.

The rationale for this question is that the isolated view of the importance of an aspect for the job-choice decision can lead to wrong conclusions. For instance, an employer might feel vindicated by high importance scores for occupational pension schemes. However, without looking simultaneously at the employees’ satisfaction scores for occupational pension schemes, the employer does not know if he can lean back or if he has a big problem. The latter would clearly be

the case in the combination of a “high importance” assessment with a “high dissatisfaction” assessment.

Most importantly, the assessments of the employees’ satisfaction will be used for multiple regression analyses because they could be seen as antecedents for organisational commitment (for details, refer to Chapter 4.2.2).

Question 3 contains the organisational commitment scale which was applied in the questionnaire, abbreviated OCS-Q. This part of the questionnaire will provide the basis for answering **RQ_2**. This abbreviation is used in order to distinguish this scale unambiguously from other organisational commitment scales. The scale construction follows closely the three-component model of Meyer and Allen (1990). This approach can be reasoned as follows: First, as outlined in Section 2.2.1, the definition of commitment which is used in this thesis is based on the work of these authors (see page 22). Second, the three-component model has been tried and tested in a great number of research studies. Although its origins go back to the 1990’s, it still seems to be the dominant model on which operationalisations of organisational commitments are based (see references on page 26). Third, the three-component model explicitly allows for a continuance dimension, which seems to have special importance for the supposed retention effect of occupational pension schemes. The OCS-Q consists of 15 items: Five items for the measurement of affective commitment (items 1, 4, 7, 10, 13), five items for the measurement of continuance commitment (items 2, 5, 8, 11, 14) and five items for the measurement of normative commitment (3, 6, 9, 12, 15). All items of the scale are listed in Appendix 7 (see also Appendix 12 for descriptives of these items). The last column of the table in Appendix 7 indicates where each item is taken from. This documentation is necessary because it was not possible (as was originally planned) to use the original scale from Meyer and Allen (1990) which comprises eight items for each of the components of the commitment scale, totalling 24 items in all. My reference people at Company_Z definitely asked for a reduction in the number of these items because they saw the risk of confusion with a similar item scale that was part of an employee survey carried out several months before the start of the empirical research for this thesis. The main reason for my intention to use the original 24-item scale of Meyer

and Allen (1990) was that a German translation of this item scale was available (Schmidt et al. 1998), which proved to be reliable, valid and three-dimensional. The requested reduction of the original item scale for this thesis was realised by mainly following Felfe et al. (2010) who used a German 14-item version based on Meyer and Allen (1990) and the translations of Schmidt et al. (1998). For the online questionnaire used for this thesis, one item of those 14 was changed because it seemed to have a content-related overlap with another item and one item was added in order to be able to work with five items in each sub-scale (see Appendix 7 for details). A pre-test of the items used in the online questionnaire before the data collection was not possible due to organisational reasons related to Company_Z. This is deemed to be acceptable for two reasons: First, the OCS-Q differs only slightly from the scale which was used by Felfe et al. (2010) and which is an abridged German version of the scale of Meyer and Allen (1990). This scale was validated in line with Classical Test Theory (Felfe et al., 2010). For details regarding Classical Test Theory and the validation of item scales, see, e.g., de Gruijter and van der Kamp (2008) and Bühner (2011). Second, in case the confirmatory factor analysis conducted with the data of the empirical research shows that some items are poorly fitting, they could then still be removed. In line with Felfe et al. (2010) and the requirements of Company_Z, the items were measured on a five-point Likert scale (see also the annotation on page 261).

The OCS-Q is an important part of the online questionnaire. It was integrated in order to be able to measure the drivers for organisational commitment. Thus, it can be measured whether or not the pension-scheme offer contributes to the employees' affective, normative or continuance commitment and therefore enforces their bond with their employer. (It is a variable-centered approach. Thus the focus is not on commitment profiles; see Meyer et al. 2018 for this distinction.) Further details are described in Chapter 4.2.2.

The last item of Question 3 (see Appendix 10) does not belong to the OCS-Q. The item "If nothing extraordinary happens, I will definitely be working for Company_Z in two years' time" is used as a measure for staying intentions which are seen as an antecedent of actual behaviour.

Question 4 comprises 10 items concerning not only the pension scheme offered by Company_Z, but also other aspects of provision for old age. These 10 items (written in italics) can be subsumed under the following headings:

1) Relevance of old-age provision in general:

a) My eventual entitlements with respect to my statutory pensions will last out a worryless life as a retiree.

b) Due to an inheritance that I am expecting, I will be able to live free of worries as a retiree.

Employees who are afraid of old-age poverty are considered to attribute higher importance to occupational pension schemes than employees who think that they will have a decent living when they retire. Thus, the respondents were asked to what extent they agreed/disagreed with the statement that, due to (a) entitlements to a statutory pension or due to (b) an inheritance, they will be able to live free of financial worries as a retiree.

2) Relevance of alternatives to Company_Z's pension scheme:

I consider private forms of old-age provision more attractive than the pension schemes of Company_Z.

Apart from statutory pensions, the most important alternatives to occupational pension schemes might be private forms of old-age provision.

3) Psychological contract:

a) On the occasion of my employment, Company_Z pledged itself to provide me with a market-compliant occupational pension scheme.

b) Company_Z has actually provided me with a market-compliant occupational pension scheme.

These two items are directed towards answering **RQ_5**: They are used for the operationalisation of the relevance of the occupational pension scheme for the psychological contract: a) is used to indicate whether the occupational pension scheme is an element of the psychological contract; b) is used to indicate a possible breach of the psychological contract (for an overview of studies with various psychological-contract measures, see Conway and Briner, 2006).

4) Assessment of Company_Z's pension scheme:

Company_Z offers its pension schemes primarily for reasons of care for its employees.

This item is used due to the findings of Luchak and Pohler (2010: 61) who said that pension incentives “can have favorable or unfavorable effects depending on whether employees perceive them as supportive relational contracts or as low-trust transactional contracts”. Agreement with this item is indicative of whether the occupational pension scheme is seen as a relational element rather than as a transactional element. Moreover, Smith and McKie (2009) explicitly subsume employer pension provision under care practices.

5) Staying / Leaving:

a) The occupational pension scheme of my employer was an important reason for me to accept the job offer of Company_Z.

b) The occupational pension scheme of my employer is an important reason for me for staying with Company_Z.

These two items play a central role in answering **RQ_1** to **RQ_3**: The respondents were directly asked the extent of their agreement with the statement that the occupational pension scheme of Company_Z was an important reason for them to accept its job offer (a) and to stay with Company_Z (b). Item a) can validate the answer to the role of the occupational pension scheme in Question 1. Thus, item a) is used for triangulation purposes. “Triangulation is supposed to support a finding by showing that independent measures of it agree with it, or at least, do not contradict it” (Miles and Huberman 1994: 266).

6) State of information on the pension scheme and the available information:

a) I am well-informed about the conditions under which I can transfer my acquired pension entitlements to a new employer.

b) I have sufficient information at my disposal regarding the pension schemes offered by Company_Z.

Occupational pension schemes can only serve as a tool for recruiting and retention management if employees appreciate the offer of pension schemes. As a rule, this requires that employees know details about their pension entitlements, vesting periods, portability, etc. But there is evidence to suggest that the employees' state of knowledge is rather low (Mitchell 1988, Loretto et al. 2000).

Question 5 gives the respondents the choice between two alternatives (see Hannah 1986 for a similar approach): The respondents were asked to assume that Company_Z will make two different offers to them and to choose the offer they would prefer. The two alternatives were: a) additional pay rise; or, b) an additional employer contribution to their pension scheme, which is equal in value to a).

Question 6 serves as a control question for the respondents' answers in the statistical part (Question 10). Moreover, it was intended to ensure that the respondents can be categorised correctly with respect to their old-age entitlements (OPS-1979 versus OPS-2004) even if they did not answer all parts of Question 10.

Question 7 explores whether or not the respondents make use of voluntary salary conversion.

Question 8 is aimed at analysing whether the respondents' level of knowledge about occupational pension schemes differs from the level of knowledge about other job-related aspects.

Question 9 can also be seen as a control question due to the fact that Company_Z does not offer all the listed methods of implementing occupational pension schemes.

Question 10 contains biographical aspects (sex, age, qualifications, tenure, income categories, etc.)

Data collection (quantitative part)

The data were collected between 2nd February 2015 and 13th February 2015 via an online questionnaire. The advantages of using an online questionnaire,

as opposed to a postal survey, were that it does not cause substantial costs, the response time is very short and the data can directly be imported in data-analysis software. The latter means that time can be saved and that wrong data entries can be avoided. Due to the fact that it was ascertained that it could not be traced back as to who participated, a potential disadvantage of online surveys was eliminated. Another reason for the choice of an online survey was that the employees of the company in which the data were collected are used to filling in online questionnaires (from the company's market-research department). Thus, there was no fear that the response rates would be lower than those of postal surveys. (For the pros and cons of various data collection methods, refer to Ilieva et al. (2002) and Coderre et al. (2004)).

The questionnaire was distributed by the market-research department of Company_Z via e-mail. This e-mail was addressed to all employees who had been hired between the years 2001 to 2003, 2004 to 2006 and 2012 to 2014. It was signed by the head of the human-resources department and the chairman of the works council. The signers explained that Company_Z was supporting a dissertation project which was about aspects of the choice of an employer with respect to employee retention. They asked the addressees of the e-mail to take part in the survey, not least because the results could also be valuable for the company (see Appendix 9 for a translated version of the invitation e-mail; this e-mail also yields the information that the data are collected anonymously and only the author of this thesis has access).

During the above-mentioned years, Company_Z hired 740 employees: 215 between 2012 and 2014 (= group A), 195 between 2004 to 2006 (= group B) and 330 between 2001 and 2003 (= group C). Thus, from the population of 740 new employees recruited, 45 % (= $330/740$) belong to those employees with OPS-1979 and 55 % (= $(215+195)/740$) belong to those employees with OPS-2004. The reasons for the selection of these three groups of employees that were recruited from 2001-2014 were as follows: First, the number of respondents with OPS-1979, on one hand, and the number of employees with OPS-2004, on the other hand, were intended to be of similar size. Second, due to the fact that Company_Z did not agree to include more than approximately 800 employees in the survey and the fact that the pilot study had shown that

employees often did not know the details of their old-age provision, two OPS-2004 sub-groups were defined, whose members might be more conscious than others of their occupational pension scheme. The first sub-group comprises the employees who were the first to whom the changed pension design was offered (group B) and who, thus, might have compared their occupational pension scheme to the former scheme. The second sub-group consisted of the employees whose appointment had taken place within the last three years, before empirical research was conducted (group A), and to whom, therefore, the offer of the occupational pension scheme was presented quite recently. Moreover, these two sub-groups might provide a substantial basis for testing hypotheses regarding the influence of job tenure on the valuation of the occupational pension scheme (controlling for the type of pension scheme) due to the fact that the job tenure of employees belonging to group B is at least six years higher than that of employees of group A.

After one e-mail reminder, the final response rate was 47.8 % (= 354/740), which is considered a good rate (for comparison, see results of a meta-analysis with respect to response rates: Manfreda et al. 2008).

b) Interviews

A first analysis of the quantitative data was conducted before the data for the qualitative part of the research were collected. The finding that the respondents' answers to the two psychological-contract items in Question 4 differed only slightly supported the idea of including an additional task in the interviews. The interviewees were asked to assess several possible contents of a psychological contract on two different sheets of paper. Table 6 depicts these potential elements of the psychological contract, which were mainly derived from Coyle-Shapiro and Kessler (2002):

1.	Long-term workplace security
2.	Good career opportunities
3.	Support in case of personal problems
4.	Chance to participate in decision processes
5.	Pieces of information with respect to important decisions
6.	Wage increases for securing the standard of living
7.	Fair pay in comparison to the wages that other employers pay to employees with comparable tasks
8.	Fair pay regarding the assigned tasks
9.	Provision of an occupational pension scheme that leads to entitlements that are usual in the industry
10.	State-of-the-art training opportunities
11.	Training that is necessary for doing the job in a good manner
12.	Autonomy that is necessary for doing the job in a good manner
13.	Guidelines and standardised workflows that make the occupational tasks easier
14.	Support in acquiring new skills

Table 6: Potential elements of the psychological contract to be assessed during the interview

On the first sheet, the respondents were asked to assess to what extent Company_Z has pledged itself to offer each of the 14 aspects to them. On the second sheet the respondents had to assess to what extent these 14 aspects were actually offered to them in the course of their employment relationship. How this task was integrated into the interview is outlined in the next section.

The interviews were conducted as semi-structured interviews. Thus, they follow the interview guideline with pre-defined key questions (Bryman 2016; see Appendix 11 for the whole interview guideline). Semi-structured interviews were considered preferable to structured interviews because they leave room for variations of the questions and of the order of the questions in case these are needed to get a deeper understanding of what the interviewee wants to express (Willis 2007). Thus, it is possible to allow for new issues that the interviewees may raise (Morgan 2014).

The interview guideline consists of 12 questions:

The **first question** is: “How long have you been working for this company?” This serves as a warm-up question for the interviewee and helps the interviewer to learn details of the employment relationship between the interviewee and Company_Z.

The **second and third questions** are an assessment of potential elements of the psychological contract described above (see Table 6). They are followed by a **fourth question** that encourages the interviewee to comment on his assessments.

The **fifth and sixth questions** directly ask about the role of the occupational pension scheme in the interviewee's decision to accept the job offer from Company_Z (Question 5) and about the role of the pension scheme in the interviewee deciding to stay with Company_Z (Question 6).

Question 7 is aimed at exploring whether the interviewee knows something about the past changes in Company_Z's pension-scheme offer.

Question 8 takes up Question 5 in the online questionnaire: "Please assume that Company_Z will make two different offers to you. Please tell me which of the following offers you would prefer: a) additional pay rise, b) an additional employer contribution to your pension scheme which is equal in value to a possible additional pay rise. Please give reasons for your choice." The aim of asking this question, not only in the online questionnaire but also in the interviews, is to enrich the results of the quantitative part of the online questionnaire and to explore potential reasons for the respondents' choice between an additional pay rise and an additional employer contribution to the pension scheme.

The aim of **Question 9** is to find out how familiar the interviewees are with the details of their occupational pension scheme (for example, the extent of their entitlements).

Question 10 is aimed at exploring whether Company_Z's pension-scheme offer might engender affective/normative commitment (a) or continuance commitment (b) and thus have an indirect retention effect: "Please tell me, with a rationale, whether or not you would agree to the following sentences: (a) My employer offers its pension scheme primarily for reasons of care for its employees. (b) With regard to my pension scheme, my financial losses would be too high in case I handed in my notice."

Question 11 asks about the attractiveness of Company_Z's occupational pension scheme in comparison with other forms of old-age provision. In the

case of the interviewee knowing details about the pension scheme, two follow-up sub-questions are added. The first sub-question is aimed at exploring what the interviewee appreciates in particular regarding his/her pension scheme. The second is aimed at exploring whether the interviewees might have proposals for changes to the pension-scheme design.

Question 12 is the final question within the interview guideline: “Do you provide otherwise for old-age provision?” It serves the purpose of finding out the relative importance of the occupational pension scheme in the interviewee’s overall package of old-age provision.

The interviewees were selected by the following criteria (purposive sampling):

No. of interview	gender	age	which pension scheme?	managerial responsibility	appointment ... years ago
1	female	40-50 years	OPS-2004	with	5 to < 10 years
2	male	40-50 years	OPS-2004	without	5 to < 10 years
3	female	40-50 years	OPS-2004	without	5 to < 10 years
4	female	40-50 years	OPS-1979	without	> 10 years
5	male	40-50 years	OPS-1979	without	> 10 years
6	male	51-65 years	OPS-2004	without	5 to < 10 years
7	female	40-50 years	OPS-1979	with	> 10 years
8	male	25-30 years	OPS-2004	without	1 year
9	male	40-50 years	OPS-1979	with	> 10 years
10	female	60-65 years	OPS-1959	without	> 10 years
11	female	51-65 years	OPS-2004	without	5 to < 10 years
12	male	60-65 years	OPS-1959	without	> 10 years
13	female	25-30 years	OPS-2004	without	1 year
14	male	60-65 years	OPS-1979	with	> 10 years
15	female	60-65 years	OPS-1979	with	> 10 years
16	male	40-50 years	OPS-2004	with	5 to < 10 years

Table 7: Criteria for selecting employees for interviews

As can be derived from Table 7, the criteria for selecting the interviewees were gender, age, the version of the occupational pension scheme to which the interviewee is entitled, managerial responsibility (with or without) and job tenure. Gender and age were chosen as selection criteria, especially in order to be able to answer **RQ_5**. Moreover, it was considered important to interview employees who cover the range of Company_Z’s different generations of occupational pension schemes. OPS-1959 stands for the occupational pension scheme introduced in the year 1959, OPS-1979 for the pension scheme introduced in 1979 and OPS-2004 for the current version of the pension

scheme, originated in 2004. Details of these different versions will be presented in Chapter 4.1. The reason for considering the version of the occupational pension scheme as an important selection criterion is that these three versions lead to varying high pension entitlements, which means that the role of an employee's occupational pension scheme for the employment relationship may differ depending on the respective version of the pension scheme. The selection criterion of "managerial responsibility" was chosen as an auxiliary criterion for "different pay levels". The current pay level may influence employees' assessments of the role of the occupational pension scheme. The same is applicable to the last selection criterion, that of job tenure.

Due to the fact that the online survey was conducted in a strictly anonymous way, it was not specified that the interviewees had to be chosen from the sample selected for the survey. The author asked the market-research department of Company_Z to select 16 interviewees according to the specifications outlined above. The number of interviews (16) was chosen because it was necessary to have enough interviewees to cover the range of selection criteria and to ensure that it was likely that saturation would be reached. In this context, saturation means that additional interviews would not lead to deepened or changed insights (Silverman 2014). Since the researcher knew that it would not be possible to conduct additional interviews at a future date, it was important that, right from the beginning, that saturation could be achieved.

The selected interviewees were informed about the purpose, the estimated length of the interviews (up to 1.5 hours) and the interviewer by the market-research department of Company_Z. Moreover, they were informed that their participation was strictly voluntary. All interviews took place in the premises of Company_Z in June 2015.

At the beginning of the interviews I introduced myself as the (external) interviewer. Moreover, I told the interviewees that it was intended to record the interview and that the recordings would be kept in a secure place and deleted after my graduation. Finally, I informed them that all pieces of information

would be treated as confidential, that anonymity was ensured and that they could at any time stop their voluntary participation in my research. All interviewees agreed to it (informed consent).

Details about preparing and conducting the analysis of the interview data are presented in Chapter 4.3.1

3.2.6. Summary

In Chapter 3.1., the research gaps that emerged from the literature review in Chapter 2 were worked out. On this basis, an overarching research question (RQ) and five separate sub-research questions (RQ_1 to RQ_5) were defined. Due to their outstanding importance for the following chapters of this thesis, these research questions are repeated here:

RQ: What is the relevance of occupational pension schemes for the employment relationship in Germany?

RQ_1: How important is the occupational pension scheme for employees with regard to their decision to accept a job offer?

RQ_2: To what extent does the employees' satisfaction with the occupational pension scheme translate into continuance, affective or normative commitment?

RQ_3: To what extent is the occupational pension scheme relevant to the employees' decisions to stay with their employer?

RQ_4: To what extent do the findings for RQ_1 to RQ_3 differ between men and women or between young and old employees?

RQ_5: How do the employees assess the fulfilment of that part of their psychological contract that is related to the occupational pension scheme and how might perceived contract breaches affect the employees' organisational commitment?

In Chapter 3.2, the methodology of the research was outlined by means of the five tiers of the research pyramid (Saunders et al. 2012). A separate section was devoted to every single one of them: In Section 3.2.1, it was reasoned that the research approach was informed by the researcher's post-positivist worldview. In this context, key characteristics of the (post-) positivist worldview

were delineated. Section 3.2.2 contained the rationale for using a mixed methods approach. Moreover, it was explained that the empirical research followed the so-called embedded design which is one of six established prototypes of mixed methods research (Creswell and Plano Clark, 2011). In this research approach, the qualitative part of the research is embedded in the quantitative part. Section 3.2.3 dealt with the choice of a single case-study approach and what caveats might have to be taken into account. Section 3.2.4 briefly characterised the empirical study as a cross-sectional study as opposed to a longitudinal study. Section 3.2.5 is the longest of the five sections: it was outlined in detail which questions were posed both in the quantitative part (online survey) and in the qualitative part (semi-structured interviews) of the empirical research. The following table summarises how these questions contribute to answering the five sub-research questions (RQ_1 to RQ_5).

A) Questions within the quantitative part (online survey)		
1)	Importance of various aspects for accepting the job offer	RQ_1
2)	Satisfaction with various aspects of the current occupational situation	RQ_2
3)	Items for the Organisational Commitment Scale (OCS-Q) plus one item related to staying intentions	RQ_2
4)	Item battery covering various topics, among others:	
	- two items related to the psychological contract	RQ_5
	- self-assessment of levels of information (e.g. portability of pension entitlements)	(RQ_3)
	- attractiveness of other forms of old-age provision	(RQ_3)
	- relevance of occupational pension scheme for accepting the job offer	RQ_1
	- relevance of occupational pension scheme for staying	RQ_2/RQ_3
5)	Choice: pay rise versus additional employer contribution to pension scheme	RQ_4
6)	Control question	
7)	Voluntary employee contributions?	
8)	Feeling of being informed of various occupational aspects	RQ_1/RQ3
9)	Knowledge of the variants of the own occupational pension scheme	(RQ_3)
10)	Statistics (e.g. age, gender, tenure, education, etc.)	RQ_4
B) Questions within the qualitative part (interviews)		
1)	Job tenure (warm-up question)	
2)	Assessment task related to the psychological contract: pledge	RQ_5
3)	Assessment task related to the psychological contract: actual provision	RQ_5
4)	Comments to 2) and 3): relating to the psychological contract	RQ_5
5)	Importance of occupational pension scheme for the acceptance of the job offer	RQ_1
6)	Importance of occupational pension scheme for staying	RQ_2/RQ_3
7)	Changes regarding the evaluation of the occupational pension scheme	RQ_5
8)	Choice: pay rise versus additional employer contribution to pension scheme	RQ_4
9)	Knowledge of details of the occupational pension scheme	(RQ_3)
10 a)	Assessment of Company_Z's reasons for pension scheme offer: reasons of care?	RQ_5
10 b)	Assessment of financial losses with respect to pension scheme in case of quitting?	RQ_3
11)	attractiveness of pension scheme compared to other forms of old-age provision Which details of the pension scheme are appreciated? Which not?	
12)	Alternatives for old-age provision	

Table 8: Overview of questions in the quantitative and the qualitative parts of the empirical research and how they relate to the research questions

In cases where the questions in the questionnaire (part A of Table 8) and those posed in the interviews (part B of Table 8) contribute predominantly in an indirect way to answering the sub-research questions, the sub-research questions are depicted in brackets.

In the following Chapter 4, the answers to RQ and its five sub-research questions are presented.

4. Results of the empirical study

In Chapter 4, the results of the empirical study are outlined. Chapter 4.1 introduces the company that agreed to participate in the empirical research. In addition, details of past and current versions of its occupational pension scheme are delineated. In Chapter 4.2 and Chapter 4.3, the results of the quantitative and the qualitative parts of the empirical research are discussed separately at first. The results of both parts are brought together in Chapter 5, including reflections on validity and reliability.

4.1. The company participating in the empirical study and its pension schemes

In this chapter, the company that participated in the empirical study and its pension-scheme offer are briefly characterised. The rationale for the choice of a single case-study approach was given in Chapter 3.2.3. It was agreed upon to anonymise all data, including the name of the company. In the following, the company in which the empirical research for this thesis was conducted is therefore called “Company_Z”.

Company_Z is a German insurance company headquartered in CITY_1, Germany. (The name “CITY_1” was chosen for reasons of confidentiality.) It is ranked among the top 20 insurance companies operating in Germany with respect to premium income. As can be deduced from its ranking (FAZ 2017) and its annual report, in 2016 the premium income amounted to more than three billion Euros. Its legal structure is that of a mutual insurance association.

The head of the human-resources department pointed out that he considered it as a “must” to offer Company_Z’s employees a good occupational pension scheme, not least because this was a common practice in the German financial-services sector. Moreover, he believes that it is a valuable retention-management tool. Nevertheless, he stated that he considered other tools more important (such as a good working atmosphere). From his point of view, the pension scheme is more important for retention management than for recruiting employees.

From 1959 until 1978, Company_Z offered its employees an “overall pension commitment” (“Gesamtversorgungszusage”) which means that the occupational pension scheme had the aim of topping up the statutory state pension to the level of a civil servant’s pension. Thus, the occupational pensions amounted to the difference between (finally) 71.25 % of the total amount of salary earned in the last two years before retirement and the statutory state pension. This meant that Company_Z had to compensate employees fully for reductions in the statutory state pension level. According to the representatives of Company_Z, this turned out to be too costly.

The occupational pension scheme of Company_Z effective between 1979 and 2004 (OPS-1979) was a final-salary pension scheme. The pension entitlements are calculated, in simplified terms, from the size of the last salary before retirement and the years of service. For example, an employee who has worked for 35 years for Company_Z (the maximum allowable number of years of service within the pension formula) will receive 22.75 % of his final salary (years of service multiplied by an index number of 0.65). OPS-1979 is a so-called “split pension formula” because earnings above the social-security contribution ceiling lead to other pension entitlements, unlike earnings below this ceiling. The following example illustrates this split pension formula. In 2004, the monthly social security contribution for West Germany was 5,150 Euros. For employees who earn more than this amount, the above-mentioned index number of 0.65 is replaced by 1.3 for the amount exceeding the monthly social security contribution ceiling. In OPS-1979, the pension entitlement for an employee with 35 years of service and a final salary of 6,000 Euros amounts to 1,558.38 Euros ($= 5,150 \text{ Euros} * 35 * 0.65 / 100 + (6,000 \text{ Euros} - 5,150 \text{ Euros}) * 35 * 1.3 / 100 = 1,171.63 \text{ Euros} + 386.75 \text{ Euros} = 1,558.38 \text{ Euros}$).

With effect from January 1st 2004, Company_Z changed its occupational pension scheme in the direction of a defined contribution plan (OPS-2004) with the additional element of an obligatory salary conversion. It is not a pure defined contribution plan because it is guaranteed that future pension entitlements accrue at least from the paid contributions. According to OPS-2004, Company_Z pledged to pay 1.6 % of the pensionable salary into a direct insurance plan and a further 1.6 % into the company’s pension funds. These

contributions are made under the condition that the employee commits himself/herself to a salary conversion of 1.6 % into the company's pension funds. Hence, all in all, the employer contributes two-thirds to the occupational pension scheme and the employee one-third. Those responsible in Company_Z argued that there were at least two main reasons for this change: It was intended to introduce employee contributions and it was considered important to integrate the new pension funds.

The main reasons for the author's choice of Company_Z for the empirical research were as follows: First, different occupational pension regimes (here defined benefit and defined contribution with guaranteed minimum payments) can be analysed within the same organisational context. Second, OPS-2004 requires additional employee contributions. Otherwise there is no obligation on the part of Company_Z to pay its employer contribution. It is of interest to see if such obligatory employee contributions are accompanied by at least a minimum awareness of the pension-scheme offer. (The literature review disclosed that many employees were illiterate regarding their old-age provision.) Last, but not least, Company_Z was of sufficient size (more than 3,000 employees) and open to the research approach of this thesis, which meant openness to both the collection of quantitative and qualitative data. In general, it is not easy in Germany to find companies (apart from the company one is working for) for such research approaches due to the fact that the consent of the works council is required.

After having introduced the company in which both the quantitative and the qualitative data were generated, the analysis of these data is presented in the following Chapters.

4.2. Overview of results of the quantitative part of the empirical study

Chapter 4.2 can be divided into two parts: In Chapter 4.2.1, it is shown that the sample distribution reflects the population. (The sampling process for the online survey has already been described on page 67.) Based on this, results of the quantitative part are delineated in Chapter 4.2.2. The analysis of the quantitative data was conducted via the software SPSS (version 22).

4.2.1. Comparison of the sample with the population

A total of 29 questionnaires were rejected because of incomplete data from the respondents' incomplete questionnaires. Hence, 325 usable responses remained, which means a corrected response rate of 43.9 %, which is still a high usable sample of respondents (see page 68).

After having analysed the quality of each particular questionnaire, the next step was to examine whether or not the respondents were a representative sample.

Groups by year of appointment	Population		Sample
	absolute	per cent	
A) 2012-2014	215	29%	24%
B) 2004-2006	195	26%	29%
A+B (OPS-2004)	410	55%	53%
C) 2001-2003 (OPS-1979)	330	45%	47%
Sum total	740	100%	100%

**Table 9: Quotas of groups A, B and C:
Comparison between the population and the sample**

Table 9 shows that, within the corrected sample of 325 respondents, 53 % belong to groups A and B (with OPS-2004) and 47 % belong to group C (with OPS-1979). This distribution is similar to the distribution in the sample (55 % versus 45 %). There is only a small shift within the aggregated group A + B. By means of a goodness-of-fit-test (see Meifert 2005), it is also tested statistically whether the distribution of the sample between the three groups is the same as the distribution of the population.

	N (population)	p_i	n (sample)	$n * p_i$	GF
A	215	0.29054	74	90.06757	2.86636727
B	195	0.26351	90	81.68919	0.84551673
C	330	0.44595	146	138.24324	0.4352276
Sum	740	1.000	310	310.000	4.147

sum of N = size of population; n = number of cases in the relevant group;

p_i = population quota; $n * p_i$ = expected value, $GF = (n_i - n * p_i)^2 / (n * p_i)$

**Table 10: Chi-square test for the comparison of the distribution of the sample
with the distribution of the population**

As can be seen from Table 10, the calculated chi-square value is 4.147. Since this value is smaller than the critical test statistic 5.99, the null hypothesis that the sample and the population are equally distributed with regard to the three groups A, B and C cannot be rejected (for two degrees of freedom and $\alpha = 0.05$; see Field 2018: 1005). In other words, with a possible error of 5 %, it can be assumed that the sample distribution reflects the distribution within the population.

Moreover, it can be positively noted that, as intended, the group of respondents with OPS-2004 is nearly the same size as the group of respondents with OPS-1979.

In an additional comparison, the distribution of men and women between the groups was examined:

Group	Male		Female	
	population	sample	population	sample
A+B (OPS-2004)	53%	52%	59%	56%
C (OPS-1979)	47%	48%	41%	44%
Sum total	100%	100%	100%	100%

Table 11: Quotas of male and female respondents: comparison between the population and the sample

This comparison shows that the distribution of male and female respondents between group A+B and group C also reflects the distribution within the population. The statistical calculations confirm the first impression derived from the figure above (these calculations are not depicted here).

4.2.2. Presentation of the results

The presentation of the results follows the order of the questions of the online survey.

Question 1: Importance of various aspects for the decision to work for Company_Z

Question 1 directly relates to RQ_1: In the first question the respondents are asked to state on a five-point Likert scale how important various aspects have been for their decision to work for Company_Z. Table 12 presents the details:

Item	Mean	Rank
your workplace security	4.7	1
work content	4.4	2
your personal impression of the persons who were in contact with you during your application process	4.1	3
creative leeway concerning your work	4.0	= 4
further career opportunities	4.0	= 4
the flexibility of your working hours	4.0	= 4
the image of Company_Z	3.9	= 7
proximity to your place of residence	3.9	= 7
the total amount of your compensation components	3.8	= 9
(possibly later on) compatibility of family and work	3.8	= 9
your expected work-life-balance	3.7	11
design of your occupational pension scheme	3.6	12
existence of variable compensation components	3.1	13
attractive surrounding of the location of the company	2.9	14
no alternative offer of another employer	2.1	15

Table 12: Relevance of various aspects in the decision to accept a job offer

By far the most important aspect in the respondents' decision to work for Company_Z is workplace security, clearly a quality which the respondents associate with Company_Z. The second most important aspect is "work content", followed by the personal impression of the people who were in contact with the respondents during the application process. The high ranking of the latter aspects might support the conclusion that the psychological contract starts to be formed even before the respondents' formal entry into the company. "Design of the pension scheme" is ranked 12th out of 15 answer options. Thus, the pension scheme seems to be of minor importance in choosing to work for Company_Z. The aspect "total amount of your compensation components" has only a slightly better rank (9) and the aspect "existence of variable compensation components" is ranked even lower (13) than "design of your pension scheme". This indicates that, in general, financial aspects seem to be less important for job-choice decisions than might have been expected.

Question 2: Employees' satisfaction with various aspects at Company_Z

Question 2 is aimed at exploring the respondents' satisfaction with various aspects of their current occupational situation at Company_Z. Nine answer options are the same as those in Question 1. Table 13 depicts the results:

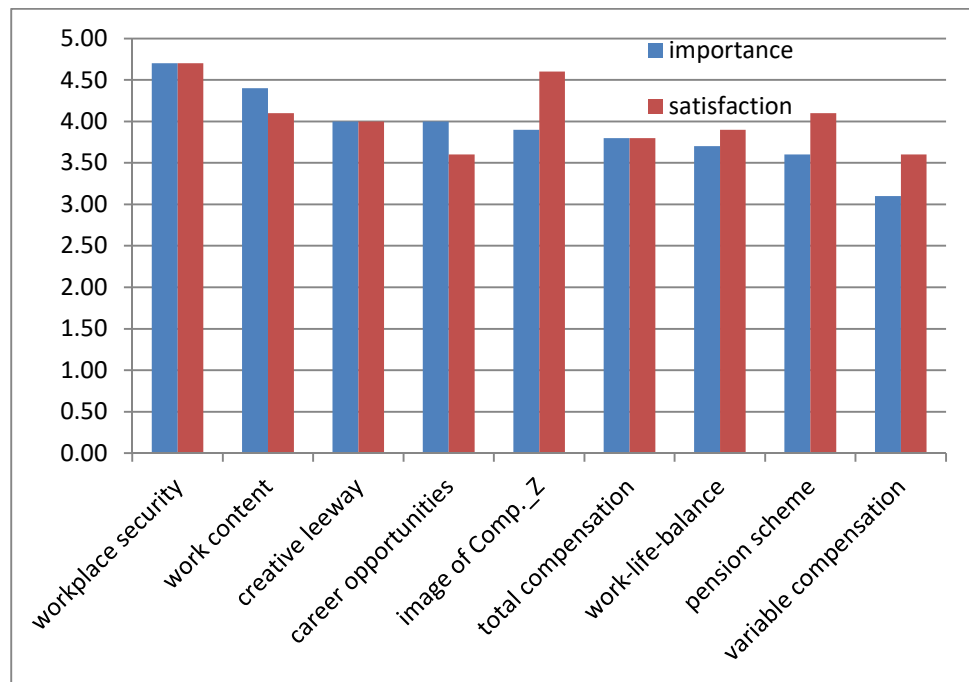
Item	Mean	Rank
your workplace security	4.7	1
the image of Company_Z	4.6	2
your professional relationship with your colleagues	4.4	= 3
the working atmosphere	4.4	= 3
your professional relationship with your hierarchical superior	4.3	5
your entire situation regarding your workplace	4.2	6
your occupational pension scheme	4.1	= 7
your work content	4.1	= 7
your creative leeway concerning your work	4.0	9
your work-life balance	3.9	10
the total amount of your compensation components	3.8	11
your variable compensation components	3.6	= 12
the offers of your employer regarding your career opportunities	3.6	= 12

Table 13: Satisfaction with various aspects

As can be seen, “workplace security” again has the highest mean (4.7) and thus is ranked in first place. It is a very positive result for Company_Z that the most important aspect of working for the company is the aspect with the highest satisfaction value. “Design of the pension scheme” is seventh-placed (mean 4.1). The means of satisfaction with “total amount of your compensation components” and “your variable compensation components” are lower (mean 3.8, rank 11 resp. mean 3.6 rank 12) than the mean of “design of the pension scheme”.

Combination of Question 1 and 2: Importance and satisfaction

Nine aspects are part of both the first question (importance of various aspects for taking the job) and the second question (satisfaction with various aspects), so that for these aspects the answers can be matched. The results are depicted in Figure 11:



(Five-point Likert scale: higher scores mean higher importance/higher satisfaction)

Figure 11: Matching mean assessments for “importance” and “satisfaction”

Figure 11 shows all pairs of “importance” means (blue bars) and “satisfaction” means (red bars) ordered by the “importance” means. The combined analysis can give a first rough indication of whether the respondents’ psychological contracts might have been breached.

With respect to the aspects “career opportunities” and “work content”, the average assessment of satisfaction is clearly lower than the average assessment of importance (mean differences -0.4 resp. -0.3). This could be judged negatively because it might indicate that the employees are disappointed about important aspects of their employment. Possibly, the employees might have expected more interesting or challenging work content and better career opportunities than they have experienced. On the other side, for four aspects, the means of “satisfaction” exceed the means of “importance”. This is the case for “image of Company_Z” (mean difference 0.7), “pension scheme” and “variable compensation” (mean difference 0.5 each) and for “work-life balance” (mean difference 0.2). Thus, although there are other aspects that are of more importance for accepting the job, the occupational pension scheme might, nevertheless, make a positive impact on retention.

For the aspect “design of your pension scheme”, the combinations of low/high importance with low/high satisfaction are depicted in four quadrants:

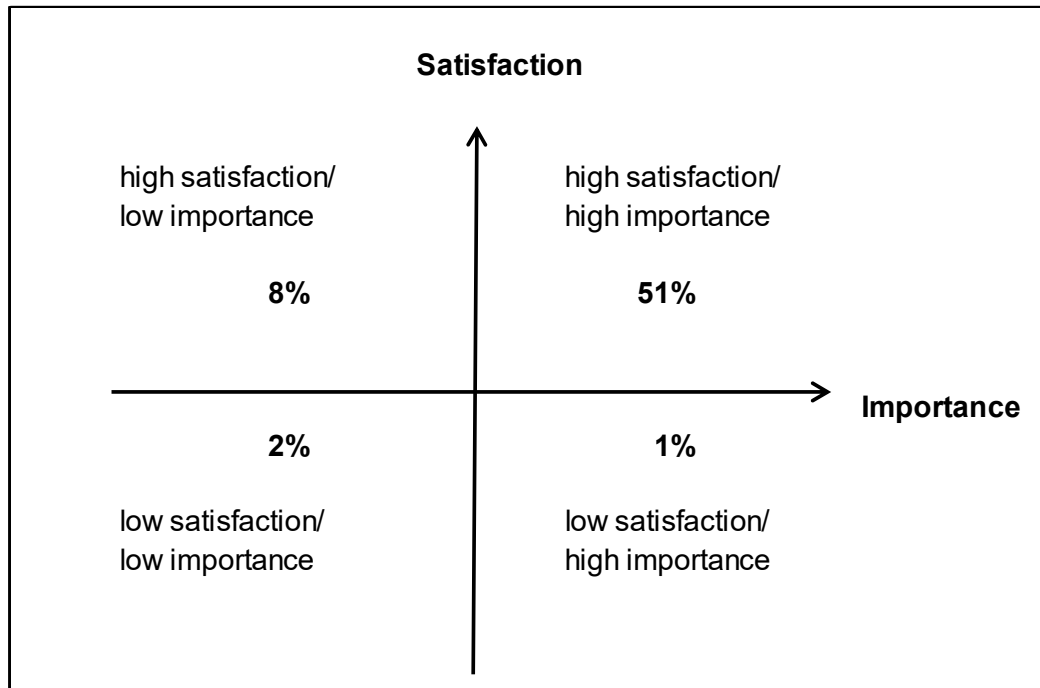


Figure 12: “Design of pension scheme”: combinations of importance and satisfaction

Note: “high” means values 4 or 5 for the respective item; “low” means: values 1 or 2 for the respective item (sum of percentages is lower than 100 % [62 %], because the cases with value 3 were not classified)

Figure 12 contains only the assessments of those respondents that did not indicate “indifference” (= value 3 for “importance” or “satisfaction” on a five-point Likert scale). From Company_Z’s view, it can be considered positively that more than half of these respondents (51 %) reported high satisfaction with the pension scheme and stated its high importance in the decision on whether or not to accept the job offer (top-right quadrant). The relevance of the combined analysis of these two variables is supported by the finding that the percentage of employees who value their pension scheme as an important reason to stay (values 4 or 5) is much higher among the “top-right employees” than for all employees in the sample: the percentage is 46 % as opposed to 34 % for all employees.

If it is possible to describe these top-right respondents socio-demographically, Company_Z might be able to address these respondents in a tailor-made

manner and thereby use its financial resources for attracting and retaining people efficiently. This point will be discussed in further detail in Chapter 6.

Question 3: Organisational commitment scale

The particular importance of question 3 (the organisational commitment scale, OCS-Q) for this thesis has already been highlighted in the methodology chapter. The **first step** of the data analysis consists of a confirmatory factor analysis (CFA) which provides relevant data for further analysis such as the so-called factor scores (a definition is given on page 93). In a **second step**, separate linear regression analyses were conducted with the factor scores for affective commitment, normative commitment and continuance commitment as dependent variables. The results of these regression analyses will be discussed further in Chapter 5 where the results of the quantitative research and the results of the qualitative research will be brought together. The execution of one or both steps is outlined in numerous research studies (e.g., Homburg and Giering 1996, Schmidt et al. 1998, Westphal 2011, Klaiber 2018).

Confirmatory factor analysis (CFA): The aim of a CFA is “to reproduce the observed relationships among a group of indicators with a smaller set of latent variables” (Brown 2015: 11). A CFA requires that the researcher specifies the number of factors in advance. Moreover, the indicators have to be assigned a priori to the specific factor on which they are considered to load highly (Pituch and Stevens 2016). Factor loadings can be seen as correlations between the items and the factors and thus as a mathematical approximation of the relevance of the items for the respective factors (Backhaus et al. 2016, Field 2018). The pre-specified factor structure is confirmed when the results of the CFA show that the indicators (here: items of the affective, normative and continuance commitment scales) in fact load highly on their putative factors/latent constructs (here: affective, normative and continuance commitment) and when, in addition, the reliability and validity measures meet the respective standards.

It is important to note that affective commitment, continuance commitment and normative commitment are reflective constructs (Solinger et al. 2008, Jaros

2009) and not formative ones, so that a CFA is an appropriate tool for verification (Weiber and Mülhhaus 2014). The CFA also provides the relevant data (here: factor scores) for further analyses.

The first CFA with all 15 items of the three-dimensional organisational commitment scale did not show the expected fit in terms of the reliability and the validity measures that are explained below. Thus, two complementary approaches were pursued.

First, it was tested whether there were significant differences between the two groups of employees with different occupational pension schemes (group AB and group C). There were two main reasons for this test. First, this thesis focuses on pension schemes. But, in case the factors accounting for the variation and covariation of the indicators for organisational commitment differ to a great extent between group AB (OPS-2004) and group C (OPS-1979) and the factor scores are then, notwithstanding this difference, calculated jointly for both groups, the subsequent regression analyses on these factor scores may not be valid. Second, there is reason to argue that both groups differ relating to tenure and age: respondents with OPS-1979 had a tenure, on average, of 13 years at the time of the data collection (2015) due to the fact that Company_Z stopped this pension scheme in the year 2003 and the sample of respondents with OPS-1979 comprised those who were newly hired in the years 2001 to 2003, whereas the respondents with OPS-2004 had an average tenure of six to seven years. Moreover, one can assume that higher tenure is, on average, related to an older age.

Second, analysis was carried out to see if there were poorly fitting items that should be discarded. The criteria for discarding items were as follows: a) items with factor loadings smaller than 0.5 (Gefen and Straub 2005) were discarded without further analyses; b) items with factor loadings between 0.5 and 0.7 were only discarded when this improved the reliability and validity measures discussed below. This more cautious elimination of items was also considered important for reasons of content validity. This serves to avoid under-specification of a construct in that content validity not only requires that the “individual items represent the construct” (Field 2018: 15) but also that they

“cover the full range of the construct” (Field 2018: 15). This is in line with Hair et al. (2017) who even use loadings of 0.4 as the lower threshold for criterion b).

For a better understanding, the results of these two approaches are outlined only after the relevant reliability and validity measures have been explained.

In the following, reliability and validity measures for the CFA are provided, which Homburg and Giering (1996) call reliability and validity measures of the second generation (as compared, for example, with Cronbach’s Alpha which they subsume under the measures of the first generation). According to Homburg and Giering (1996), the intensified use of reliability and validity measures of the second generation is closely related to the dissemination of confirmatory factor analyses. Among these measures of the second generation are the following: Average Variance Explained (AVE) and Composite Reliability (CR). “The AVE represents the average amount of variance that a construct explains in its indicator variables relative to the overall variance of its indicators” (Henseler et al. 2015: 116 et seq.). CR is the “reliability of all the items of a factor” (Bagozzi and Yi 2012: 17). It is a measure of internal consistency reliability (Hair et al. 2017). It is considered a more accurate reliability measure than Cronbach’s Alpha because it is not based on the assumption of equal weightings of items (Majchrzak et al. 2005). In the German literature, CR is sometimes referred to as factor reliability (Homburg and Giering 1996, Backhaus et al. 2015). Since Hair et al. (2017) argue that true reliability can be expected to lie between Cronbach’s Alpha (lower bound) and CR (upper bound), the values for Cronbach’s Alpha are, despite its weaknesses, commented on additionally.

Hair et al. (2017) characterise AVE as a common measure of the convergent validity of the research approach. The Convergent validity and discriminant validity are two forms of construct validity. “Construct validity is the extent to which an observation measures the concept it is intended to measure” (Bagozzi and Phillips 1982: 468). Convergent validity of a measure is expressed by the “extent to which it correlates highly with other methods designed to measure the same construct” (Churchill Jr 1979: 70). “Discriminant

validity is the degree to which measures of distinct concepts differ” (Bagozzi and Phillips 1982: 469). There are two main ways to measure discriminant validity. The first one is that “an indicator’s outer loading on the associated construct should be greater than any of its cross-loadings (i.e., its correlation) on other constructs” (Hair et al 2017: 115). The second is the criterion of Fornell and Larcker (1981), which postulates that the square root of the AVE of a factor is higher than the correlations between this factor and every other factor. The verification of these measures is reported below.

Gefen et al. (2000) argue that there are only rules of thumb for minimum thresholds for confirming validity. Fornell and Larcker (1981) argue, in an often cited article, that the AVE should not be less than 0.50 because, otherwise, “the variance due to measurement error is larger than the variance captured by the construct [...] and the validity of the individual indicators [...] as well as the construct [...] is questionable” (Fornell and Larcker 1981: 46). This threshold is widely accepted. The critical values for CR should be greater than 0.6 (Bagozzi and Yi 1988, Hair et al. 2011).

Cronbach’s Alpha can be interpreted as a measure of the internal consistency of the items with regard to the construct (Bühner 2011, Cho and Kim 2015). Cronbach’s Alpha can range from 0 to 1.0, whereby higher values denote higher internal consistency (Bryman 2016). In the academic debate there are different views regarding the minimum level for Cronbach’s Alpha. Field (2018), for example, states that a value of 0.7 to 0.8 is considered acceptable. Cortina (1993) and Bühner (2011) point out that the value of Cronbach’s Alpha depends on the number of items: high numbers of items may lead to higher values. Due to the fact that the subscales of the OCS-Q are small (each subscale consists of less than four items), values of at least 0.6 are assessed as being acceptable (for similar views, see: Brewerton and Millward 2001, Malhotra et al. 2017).

After having explained the reliability and validity measures, the results of the two approaches towards the improvement of the fit of the organisational commitment scale are presented. For the analysis of potential differences between the two pension-scheme groups, various two-tailed t-tests were

conducted. These t-tests revealed highly significant mean differences ($p < 0.001$) for two of the 15 indicators (“It would be too costly for me to leave my employer, Company_Z, now” and “I believe that I have too few options to consider leaving Company_Z at the moment”). For another two indicators, the mean differences are close to the threshold of weak significance ($p \approx 0.05$; “I would be very happy to spend the rest of my career with Company_Z” and “I feel a strong sense of ‘belonging’ to Company_Z, now”). Moreover, for the two pension-scheme groups, the differences in the means of the variables “tenure” and “age” (measured in years) are highly significant ($p < 0.001$). Out of the overall 17 t-tests, the four highly significant mean differences are still significant when the experiment-wise error rate of these multiple comparisons is controlled for by using the Bonferroni correction, as described by Field (2018; $p < \alpha/17$ with $\alpha = 0.05$). These findings suggest that it could be expedient to optimise the fit of the scales for both pension-scheme groups separately. This consideration will be examined in the following section.

Several confirmatory factor analyses were conducted via SmartPLS to improve the initial 15-item scale. This was done for all respondents jointly and, additionally, for each of the two pension-scheme groups separately (group AB and group C). Table 14 depicts the results.

1. Differentiated by pension groups				2. All respondents			
Group AB							
	AVE	CR	Cronb. α		AVE	CR	Cronb. α
Affective	0.722	0.886	0.807	Affective	0.604	0.857	0.779
Continuance	0.560	0.792	0.624	Continuance	0.503	0.745	0.585
Normative	0.565	0.793	0.607	Normative	0.553	0.784	0.591
without items 1, 8, 12, 13, 14 and 15				without items 3, 8, 13, 14 and 15			
Group C							
	AVE	CR	Cronb. α				
Affective	0.683	0.866	0.766				
Continuance	0.720	0.837	0.612				
Normative	0.562	0.791	0.607				
without items 1, 8, 11, 12, 13, 14 and 15							

Table 14: Average Variance Explained (AVE), Composite Reliability (CR) and Cronbach’s Alpha (Cronb. α) for various confirmatory factor analyses

For the two pension groups, the values of AVE, CR and Cronbach's Alpha are presented on the left of Table 14. The respective values for all respondents are presented on the right.

As can be deduced from Table 14, the common thresholds for AVE (> 0.5), CR (> 0.6) and Cronbach's Alpha (> 0.6) are passed without exception when the scales are optimised for the two pension groups separately. When the commitment scales are improved for the sample as a whole ("all respondents" on the right), however, the scales for continuance commitment and normative commitment do not exceed the required threshold for Cronbach's Alpha. Thus, the solution which differentiates between the two pension-scheme groups is considered to be superior to the solution for all respondents.

This is supported by the fact that the optimal fit for the continuance commitment scale differs between group AB (items 2, 5 and 11) and group C (items 2 and 5). If this is neglected, the reliability of the scale would be lower (see "all respondents" with items 2, 5 and 11 for continuance commitment) and the resulting factors scores are likely to be less meaningful due to the fact that existing differences between the two groups are obliterated. However, the solution on the left has the disadvantages that the values for Cronbach's Alpha for normative and continuance commitment are still comparatively low and more indicators had to be discarded than for the solution on the right. Thus, the interpretation of the research results based on these commitment scales might be subject to some restrictions. This may particularly be the case for the continuance commitment scale of group C which comprises only two indicators.

After having argued that it is deemed appropriate to differentiate between groups AB and C, the subsequent analyses (see also the regression analyses in Chapter 5.2) will build on this.

Table 15 (on the next page) depicts the three-factor solution of the CFA for group AB after all poorly fitting items were discarded.

Group AB	Variable names in SPSS	Factors		
		Affective Commitment (AC)	Normative Commitment (NC)	Continuance Commitment (CC)
		LV1_AC	LV3_NC	LV2_CC
I feel a strong sense of "belonging" to Company_Z.	nv3_10 sense of belonging	0.915	0.443	0.236
I am proud of belonging to Company_Z.	nv3_7 proud	0.870	0.468	0.216
I do not feel "emotionally attached" to Company_Z.	nv3_4_not emotional attach	0.757	0.385	0.161
Even if it were to my advantage, I do not feel it would be right to leave Company_Z, now.	nv3_6 even advantage	0.470	0.831	0.377
I would feel guilty if I left Company_Z, now.	nv3_9 feel of guilty	0.264	0.794	0.463
I do not attach much importance to remaining loyal to an employer.	nv3_3_re loyalty not imp	0.420	0.612	0.257
I have already put too much of myself into Company_Z to consider working elsewhere.	nv3_11 too much effort	0.245	0.479	0.801
Too much of my life would be disrupted if I wanted to leave my employer, Company_Z, now.	nv3_5 too much disrupted	0.176	0.319	0.708
It would be too costly for me to leave my employer, Company_Z, now.	nv3_2 too costly	0.096	0.257	0.733

without items 1, 8, 12, 13, 14, 15

Table 15: Factor loadings as results of the confirmatory factor analysis for group AB

Table 16 displays the three-factor solution of the CFA for group C after the fit of the three scales was improved.

Group C	Variable names in SPSS	Factors		
		Affective Commitment (AC)	Normative Commitment (NC)	Continuance Commitment (CC)
		LV1_AC	LV3_NC	LV2_CC
I feel a strong sense of "belonging" to Company_Z.	nv3_10 sense of belonging	0.889	0.512	0.035
I am proud of belonging to Company_Z.	nv3_7 proud	0.805	0.451	0.054
I do not feel "emotionally attached" to Company_Z.	nv3_4_not emotional attach	0.782	0.460	0.001
Even if it were to my advantage, I do not feel it would be right to leave Company_Z, now.	nv3_6 even advantage	0.510	0.864	0.047
I would feel guilty if I left Company_Z, now.	nv3_9 feel of guilty	0.401	0.721	0.105
I do not attach much importance to remaining loyal to an employer.	nv3_3_re loyalty not imp	0.367	0.648	0.104
Too much of my life would be disrupted if I wanted to leave my employer, Company_Z, now.	nv3_5 too much disrupted	-0.034	0.089	0.849
It would be too costly for me to leave my employer, Company_Z, now.	nv3_2 too costly	0.095	0.091	0.848

without items 1, 8, 11, 12, 13, 14, 15

Table 16: Factor loadings as results of the confirmatory factor analysis for group C

Table 15 and Table 16 show the factors (columns) and items (rows) with the respective factor loadings. These tables depict the assignment of the items to their putative factors (green-shaded factor loadings). All items load highly on those factors that were theoretically expected and all loadings are clearly higher than the cross-loadings. Thus, the three-dimensionality of the organisational commitment construct is approved. The names of the factors were assigned by the author of this thesis according to the height of the factor loadings and the resulting interpretations of each factor (affective, normative and continuance commitment). As can be deduced from the yellow-shaded cells in Appendix 12, the items which load highly only on their associated

factor correlate highly and significantly with the respective factor-score variables. This supports the results.

Two final steps should be taken when assessing the three-factor solution of the CFA. First, it is verified if the criterion of Fornell and Larcker (1981) is fulfilled. In Appendix 13, it is shown that this is the case. Second, all factor loadings differ significantly from “0” ($p < 0.05$; thus $|Z| > 1.645$ for a one tailed-test: the positive values indicate that directionality is given).

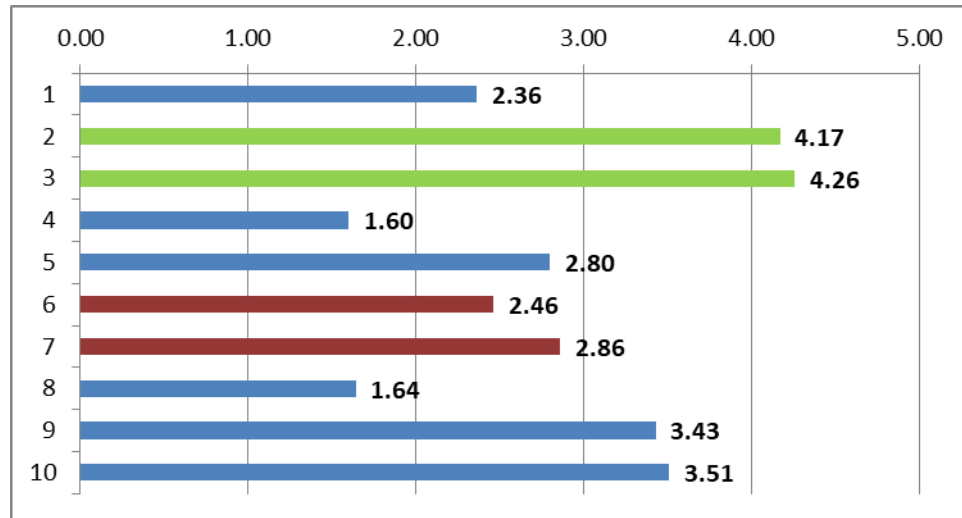
All in all, the measures and the corresponding explanations above confirm that the preconditions for carrying out a factor analysis were met and that the CFA delivered a reliable and valid three-factor solution. This is all the more important because the results of the factor analysis cannot only be used for verifying the dimensionality of the OCS-Q, but also as components of further analyses. The factor scores, for example, which are calculated for each factor and for each respondent, can be seen as a dimension-reduced and estimated aggregate of the respondents’ answers to the corresponding items (Field 2018). In Chapter 5.2, these factor scores will be used for linear regression analyses in order to test the drivers of affective, normative and continuance commitment. Here, the main focus is on the question of whether or not the employees’ satisfaction with the occupational pension scheme is a significant predictor (“driver”). However, it is important to add that the terms “predictors” and “drivers” do not mean that regression analyses test for causality.

In the remainder of this Chapter 4.2.2, the answers to questions 4 to 9 of the online questionnaire are presented.

Question 4: Employees’ agreement to various aspects with respect to old-age provision

As outlined on page 64, Question 4 allows for items which pertain to the area of old-age provision and which go beyond the occupational pension scheme offered by Company_Z. In the first step, all 10 items and their respective

means are presented in a single figure (in the order specified in the questionnaire):



mean values; five-point Likert scale: 1 = strongly disagree; 5 = strongly agree

1. I consider private forms of old-age provision more attractive than the pension scheme of Company_Z.
2. On the occasion of my employment, Company_Z pledged itself to provide me with a market-compliant occupational pension scheme.
3. Company_Z has actually provided me with a market-compliant occupational pension scheme.
4. My eventual entitlements with respect to my statutory pensions will last out a worriless life as a retiree.
5. I am well-informed about the conditions under which I can transfer my acquired pension entitlements to a new employer
6. The occupational pension scheme of my employer was an important reason for me to accept the job offer of Company_Z.
7. The occupational pension scheme of my employer is an important reason for me for staying with Company_Z.
8. Due to an inheritance that I am expecting, I will be able to live free of worries as a retiree.
9. I have sufficient information at my disposal regarding the pension schemes offered by Company_Z.
10. Company_Z offers its pension scheme primarily for reasons of care for its employees.

Figure 13: (Dis)agreement with statements pertaining to old-age provision

The item with the highest mean is the third one: the respondents were asked for their (dis)agreement with the statement “Company_Z has *actually* provided me with a market-compliant pension scheme”. The mean is 4.26 on a five-point Likert scale (1 = strongly disagree; 5 = strongly agree). The lowest item mean is 1.60. It pertains to the fourth item: “My eventual entitlements with respect to my statutory pensions will last out a worriless life as a retiree.” This shows that the respondents are aware of the fact that the statutory pension alone will not guarantee a sufficient pension.

In the following, the 10 items are discussed in more detail under the sub-headings introduced in the methodology chapter.

Q 4.1: Relevance of old-age provision in general

Item 4: My eventual entitlements with respect to my statutory pensions will last out a worriless life as a retiree (mean 1.60).

Item 8: Due to an inheritance that I am expecting, I will be able to live free of worries as a retiree (mean 1.64).

As pointed out above, item 4 is the item with the lowest mean of all 10 items. Nearly 60 % of all respondents strongly disagreed with the statement that their eventual statutory pension scheme would last out a worriless life as a retiree. Item 8 has the second lowest mean (1.64). The percentage of respondents who strongly disagree with item 8 is even higher than for item 4 (63 %). These results indicate that a great amount of respondents foresee old-age poverty in the absence of inheritances or a high statutory pension. Perhaps this awareness leads to a higher appreciation of employer-financed pension schemes.

Q 4.2: Relevance of alternatives to Company_Z's pension scheme

Item 1: I consider private forms of old-age provision more attractive than the pension scheme of Company_Z (mean: 2.36).

Item 1 addresses whether the respondents consider other forms of old-age provision more attractive than the pension scheme of Company_Z. The low mean of 2.36 signals that, on average, the disagreement with this statement is higher than the agreement with it. In other words, the majority of the respondents seem to consider the pension scheme of Company_Z more attractive than private forms of old-age provision.

Q 4.3: Psychological contract

Item 2 (first green bar): On the occasion of my employment, Company_Z pledged itself to provide me with a market-compliant occupational pension scheme (mean: 4.17).

Item 3 (second green bar): Company_Z has actually provided me with a market-compliant occupational pension scheme (mean: 4.26).

The high mean of item 2 (4.17) indicates the high approval of the statement “On the occasion of my employment, Company_Z pledged itself to provide me

with a market-compliant occupational pension scheme". This can be seen as a clear indication that the provision of the occupational pension scheme is seen as a constituent part of the respondents' psychological contract. Whereas item 2 measures whether the respondents think that the company has pledged itself to provide a market-compliant pension, item 3 measures whether the respondents think that the company has really put it into action. The mean of item 3 (4.26) is slightly higher than that of item 2. This can be interpreted as an (on average) fulfilment of the psychological contract.

However, by definition, the psychological contract is a construct that has to be analysed on the individual level. For this reason, the score on the Likert scale for item 2 (pledge) was subtracted from the score on the Likert scale for item 3 (real provision) for each respondent. Thus, negative results indicate that the psychological contract is broken because the respondent is of the opinion that she/he has received less than what was pledged. The results are as follows: 76 % of respondents ranked the same item score for both item 2 and item 3, although the textual differences between these two items were highlighted by italics (see above). Thus, these respondents consider that they have received what was pledged. A total of 14 % of respondents were even positively surprised, whereas for 10 % of respondents, the psychological contract had obviously been broken.

Q 4.4: Assessment of Company_Z's pension scheme

Item 10: Company_Z offers its pension schemes primarily for reasons of care for its employees (mean: 3.51).

Item 10 asks for the respondents' assessment of whether Company_Z offers its pension scheme primarily for reasons of care for its employees. The high mean (3.51) shows that the respondents believe that Company_Z offers its pension scheme not for primarily self-serving reasons (under which the recruiting and the retention function reasons can also be subsumed). As outlined on page 65, this result could be seen as an indication that the pension-scheme pledge of Company_Z is predominantly seen as a relational psychological contract.

Q 4.5: Staying/leaving

Item 6 (first red bar): The occupational pension scheme of my employer was an important reason for me to accept the job offer of Company_Z (mean: 2.46).

Item 7 (second red bar): The occupational pension scheme of my employer is an important reason for me for staying with Company_Z (mean: 2.86).

Items 6 and 7 are aimed at measuring the importance of Company_Z's occupational pension scheme as a recruiting tool (item 6) and as a retention-management tool (item 7). The mean of 2.46 for item 6 supports the conclusion that the occupational pension scheme of Company_Z is not central to the respondents' decision to work for Company_Z. Only 4 % of the respondents "strongly agreed" with item 6 (item scale value "5") and 15 % rated item scale value "4". Interestingly, the mean value of the comparable item in Question 1 is much higher (3.6) than the mean value of item 6 in Question 4. The difference might result from the questionnaire design: Question 1 contains a lot of possible aspects that might be important for a decision to take a job. This may entail a tendency towards rating the higher item scale values generally. However, Question 1 was purposely designed in this manner in order to measure the relative importance of occupational pension schemes in accepting a job offer. As mentioned before, in Question 1 the occupational pension scheme was ranked only 12th out of 15 answer options, indicating the minor importance of the role of occupational pension schemes in job choice decisions.

A comparison of the answers to item 6 (mean 2.46) and item 7 (mean: 2.86) shows, that occupational pension schemes are more important for binding the employees to Company_Z than for attracting them to Company_Z.

Q 4.6: State of information

Item 9: I have sufficient information at my disposal regarding the pension schemes offered by Company_Z (mean: 3.43).

Item 5: I am well-informed about the conditions under which I can transfer my acquired pension entitlements to a new employer (mean: 2.80).

Clearly, the respondents predominantly consider that they have sufficient information about Company_Z's pension scheme at their disposal (item 9:

mean: 3.43). Nevertheless, when the respondents were asked to what extent they agreed with the statement “I am well informed about the conditions under which I can transfer my acquired pension entitlements to a new employer” (item 5), the mean was much lower (2.80). This indicates that respondents might overestimate their knowledge of their pension scheme, which becomes apparent when the questions focus on details of the pension scheme. In particular, knowledge of the portability regulations may influence the importance of occupational pensions as a retention factor. If employees do not know that portability regulations might apply, the importance of occupational pensions as a retention factor might be low.

Question 5: Pay rise versus additional employer contribution to the pension scheme

The respondents were also asked to assume that Company_Z would make them alternative offers. The first offer would be an additional pay rise and the second an additional employer contribution to their pension scheme, equal in value to the offered pay rise. A total of 71 % of respondents preferred the additional pay rise and only 29 % per cent preferred an additional employer contribution. Figure 14 shows that the responses are age-dependent.

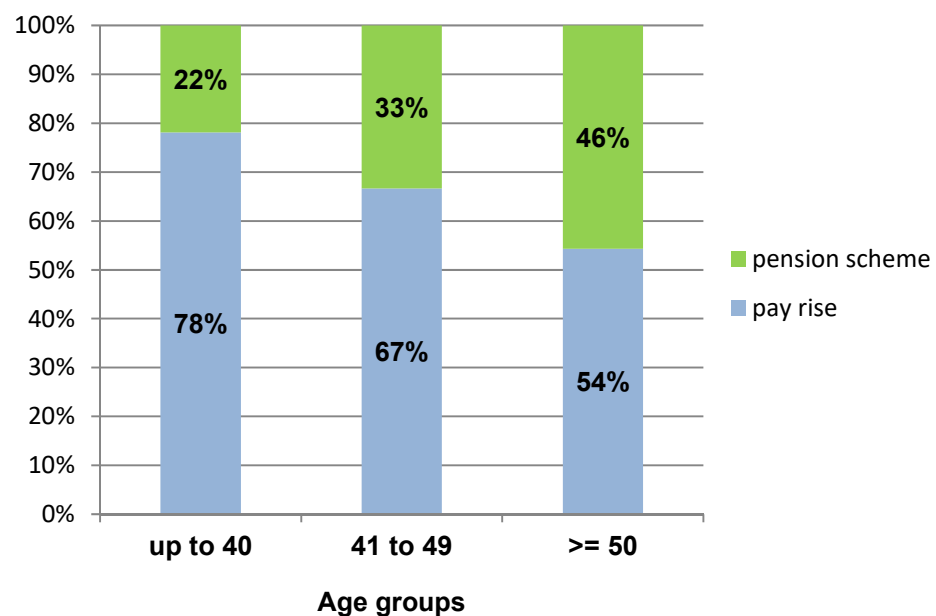


Figure 14: Decision for one of two options: Pay rise versus additional employer contribution to the pension scheme

The lowest percentage of respondents who opted for an additional employer contribution to the pension scheme can be found in the group up to 40 years of age (22 %) and the highest in the age group “>= 50 years” (46 %). This might be due to the fact that younger respondents might see a pay rise primarily as a contribution to the cost of living, whereas this aspect might be of minor importance for older respondents. In addition, the closer the respondents come to their retirement age, the more they might consider whether or not their entitlements to pensions will suffice in securing a good standard of living as a retiree. The above stated relationship between the variables is significant (Pearson chi-square (2) = 9.606; $p < 0.01$). The association is, however, moderate (Cramer’s V for nominal variables is 0.175, possible range: 0 to 1, $p < 0.01$). The selection decision did not differ between men and women.

Question 6: First working day at Company_Z before or after 1st January 2004

Company_Z changed its occupational pension scheme substantially with effect from 1st January 2004. Thus, it was considered important to be able to distinguish properly between the answers of the respondents with OPS-1979 on the one hand and those with OPS-2004 on the other. Therefore, for quality reasons, all answers by respondents whose answers to Question 6 and the relevant part of Question 10 (statistical part) deviated were eliminated from the data-set at the beginning of the data analysis.

Question 7 (filter question for respondents with OPS-2004): Do you convert more salary than your compulsory contribution requires?

Question 7 is only directed towards those respondents with OPS-2004. As outlined on page 77, Company_Z contributes 1.6 % of pensionable salary into a direct insurance plan and a further 1.6 % into the company’s pension funds. These contributions are made under the condition that the employee commits himself/herself to a salary conversion of 1.6 % into the company’s pension funds.

A total of 26 % of the respondents with OPS-2004 state that they contribute more than the compulsory 1.6 % to their pension scheme, while 40 %

answered that they do not contribute more than required. Interestingly, 34 % selected “I do not know”. This is surprising because it necessitates an active decision to increase the percentage of the salary conversion, so it could be assumed that the respondents knew whether or not they took this decision.

Question 8: Extent of being informed about various aspects

Question 8 aims to compare employees’ self-reported information level about the occupational pension scheme with self-reported information levels relating to other aspects within the employment relationship, such as corporate objectives, possible career opportunities, employer’s expectations, the hierarchical supervisors’ assessments of their job performance and the compensation system of the company. Figure 15 depicts the respondents’ self-assessments for all mentioned aspects.

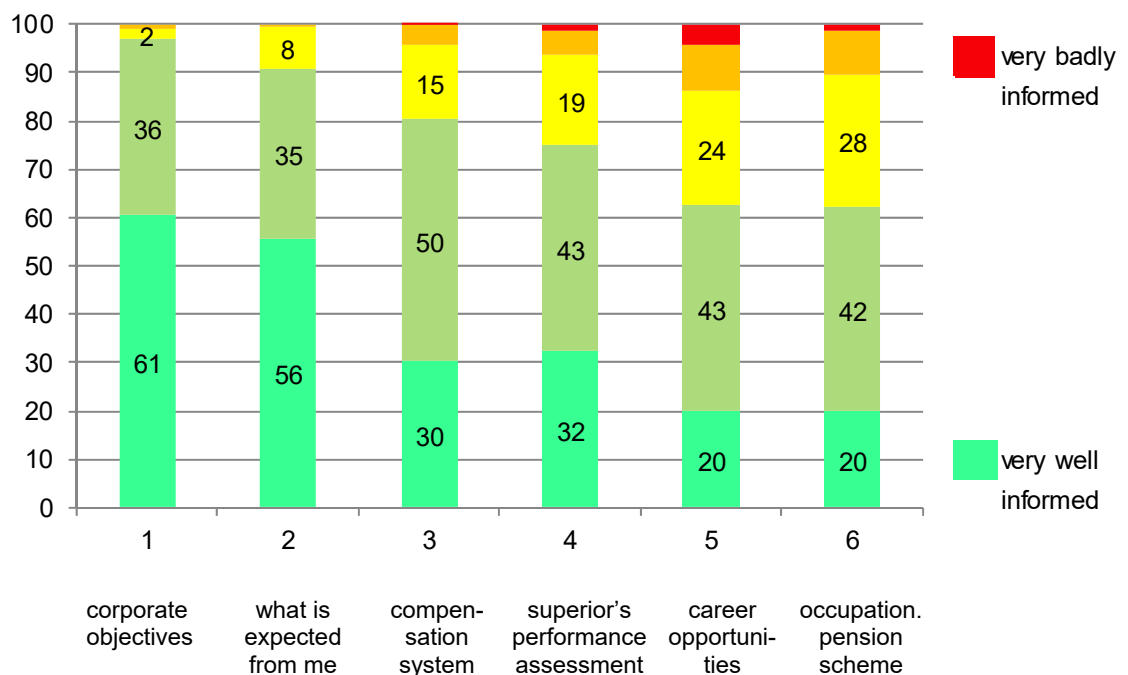


Figure 15: Comparison of levels of being informed about various aspects

Figure 15 indicates that the respondents seem highly informed about corporate objectives: 61 % state that they are “very well informed” (= highest answer option). The aggregated value of the two highest answer options even amounts to a percentage of 97 %. The other self-reported information levels (enumerated in decreasing order with the aggregated value of the two highest

answer options given in brackets) are: “What is expected from me” 56 % (91 %); “compensation system” 30 % (80 %); “hierarchical superior’s assessment of job performance” 32 % (75 %); “career opportunities” 20 % (63 %); and “occupational pension scheme” 20 % (62 %). Hence, the respondents’ self-reported information level is lowest with respect to the occupational pension scheme.

Question 9 (control question): Respondents’ knowledge of a key characterisation of their occupational pension scheme

In Question 9, the respondents are asked to rate those methods of implementing occupational pension schemes that apply to their own scheme at Company_Z. The correct answers would have been “book reserve”, “support funds” or “pension funds” for employees hired before 2004 (group C) and “direct insurance” and “pension funds” for employees hired from 2004 onwards (group AB). Even if one allows for the fact that the respondents hired before 2004 might have taken along direct insurance from a former employment relationship, the number of wrong answers for both groups of employees is significantly high. In group AB (n = 163), 73 answers from respondents in this group were incorrect. Moreover, it is stated 45 times that “I am not able to give any information about the form of my occupational pension scheme”. In group C (n=144), 29 respondents were unaware what type of occupational pension scheme they were in. Here, 23 respondents admit that they do not know what kind of occupational pension scheme they have. (Due to the fact that multiple answers were possible with respect to Question 9, no percentages are calculated.)

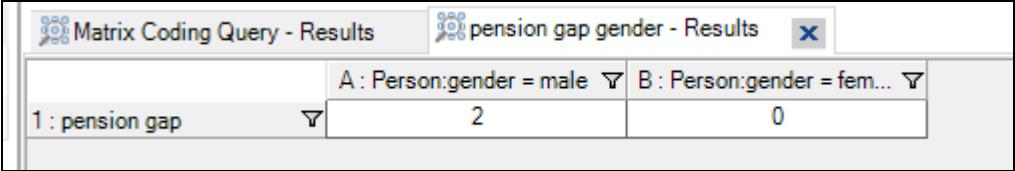
In summary, the results of questions 8 and 9 support a finding reported on page 97, that the respondents’ self-reported knowledge of their occupational pension scheme is comparatively low. Moreover, they might even overestimate their knowledge of their occupational pension scheme. This is revealed when they are asked about details of it.

4.3. Overview of results of the qualitative part of the empirical study

4.3.1. Details about preparing and conducting the data analysis

All 16 interviews were conducted in German, the mother tongue of the author of this thesis (= the interviewer) and the mother tongue of all the interviewees.

All the interviews were transcribed by a professional transcription service that consistently followed the simple version of the transcription rules of Dresing and Pehl (2015). It was agreed to set time stamps at every change of spokesperson (interviewer/interviewee) in order to be able to switch easily to the relevant passages of the audio source later on. This turned out to be especially helpful when it was considered worthwhile checking accentuations within the remarks of the interviewee or checking passages characterised as “not understandable” by the transcriber. After finishing these quality checks, all transcripts were imported (in German) into NVivo 11 Pro, a qualitative data-analysis software. It was considered important to use specialised software in order to make the process of structuring the data as efficient as possible. Moreover, it was expected that, with the support of software such as NVivo, the data could be analysed in more sophisticated ways, for example by matrix coding queries. Figure 16 shows an example of a matrix coding query.



	A : Person:gender = male ▾	B : Person:gender = fem... ▾
1 : pension gap ▾	2	0

Figure 16: Example of a matrix coding query

Here, the data were analysed for differences between men and women (columns) with respect to the use of the code “pension gap”. Figure 16 shows that “pension gap” was mentioned twice by men and not mentioned by women. For details of various software packages for analysing qualitative data, refer to Schreier (2013) and also Silver and Lewins (2014).

The data analysis was done on the basis of the German versions of the transcripts in order to reduce potential sources of misinterpretation, such as distorted translation, as far as possible. Translations into English were not made before direct speech was reported in this thesis. These translations into

English were counterchecked by a native speaker. Codes were directly assigned in English.

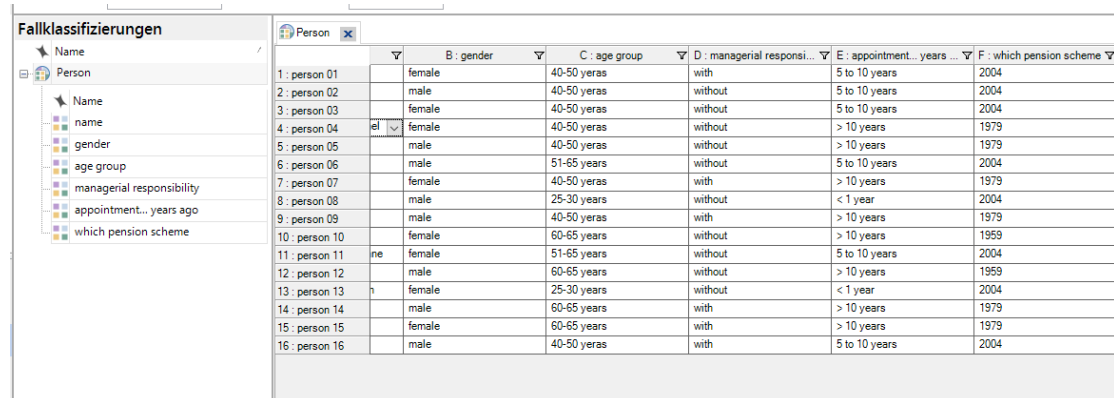
The data analysis follows the **thematic analysis** approach which, according to Bryman (2016), can be subsumed under the most common approaches to qualitative data analysis. As a distinct qualitative research approach, it has gained popularity, especially after the publication of two key academic texts (Boyatzis 1998, Braun and Clarke 2006). Thematic analysis “can be defined as a process of interpretation of qualitative data in order to find patterns of meaning across the data” (Crowe et al. 2015: 617). Joffe and Yardley (2004) describe thematic analysis as being similar to content analysis. According to them, these two approaches differ in that thematic analysis focuses to a larger extent on qualitative aspects, including latent levels of meanings, whereas content analysis is often used in a more descriptive way, also including numerical descriptions such as code counts (in the same vein: Vaismoradi et al. 2013). Since the qualitative part of this research is aimed at enriching its quantitative part by taking subjective meanings and interpretations into account, the use of thematic analysis is considered more appropriate. Carrying out a thematic analysis is a structured process with various steps (Nowell et al. 2017). An essential step is the process of coding. “A code in qualitative inquiry is most often a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data” (Saldaña 2016: 4). Thus, coding means assigning codes to the data (in the context of this thesis, to text passages of the transcribed interviews). For this thesis, a hybrid approach, consisting of deductive and inductive coding, was used (similar to Fereday and Muir-Cochrane 2006). Deductive coding is also called theory-driven coding, which means that the researcher predefines codes based on existing knowledge or on the researchers’ aim of directly addressing the research questions posed (Boyatzis 1998). Crabtree and Miller (1992) termed this approach the “template approach”. This approach results in a predefined codebook which is used at the starting point and which will be expanded by inductive coding. Inductive coding takes place during the process of going through each of the transcribed interviews by assigning codes to the raw data (Joffe and Yardley 2004). The

reason for using a hybrid approach is that it focuses on answers to the research questions, while at the same time being open to the richness of themes that might emerge from the data. Moreover, this hybrid approach fits very well into the mixed methods approach used in this thesis, which also combines deductive and inductive ways of analysis. In Appendix 17, the final code structure is depicted, which is the result of a time-consuming iterative process, including the adding and renaming of codes and also their sorting and resorting into a hierarchical tree structure. The codes in bold are the codes which were predefined (deductive approach; directly addressing the research questions), while the other codes resulted from analysis of the transcripts (inductive approach). The process of compiling this code structure was guided by the aim of keeping the structure overseeable. This means that various “nodes” (in NVivo, coding is stored in “nodes”, refer to Bazeley and Jackson 2013) were purposely not divided into further “child nodes”. Besides offering the advantage of a neatly arranged code structure, this forces the researcher into an intensified analysis of the broader context when, guided by the codes, reading the transcripts again and again. This approach resembles the approach described by Crabtree and Miller (1992: 95): codes are used “as a data management tool in which segments of similar text are printed for subsequent reading and analysis”. Thus, the codes used are *a priori* not identical to “themes”. Some themes may not become apparent until a deeper analysis has been carried out (Saldaña 2016).

4.3.2. The stories of the interviewees

In this Chapter, a narrative account is given for each of the 16 interviews. These stories contribute to a better understanding of the interviewees’ interpretations and judgments. Thus, they enable the reader to make better judgments with respect to the transferability of the conclusions derived from the empirical research (see further details in Chapter 6.4.1). It has to be kept in mind that these accounts are the authors’ interpretations of the interviewees’ ways of looking at things. The accounts are presented in the order in which the interviews were conducted. Figure 17 briefly characterises the 16 interviewees.

It corresponds to Table 7 on page 71, which depicted the selection criteria for the interviews.



	B : gender	C : age group	D : managerial responsi...	E : appointment... years ...	F : which pension scheme
1 : person 01	female	40-50 yeras	with	5 to 10 years	2004
2 : person 02	male	40-50 yeras	without	5 to 10 years	2004
3 : person 03	female	40-50 yeras	without	5 to 10 years	2004
4 : person 04	female	40-50 yeras	without	> 10 years	1979
5 : person 05	male	40-50 yeras	without	> 10 years	1979
6 : person 06	male	51-65 years	without	5 to 10 years	2004
7 : person 07	female	40-50 yeras	with	> 10 years	1979
8 : person 08	male	25-30 years	without	< 1 year	2004
9 : person 09	male	40-50 yeras	with	> 10 years	1979
10 : person 10	female	60-65 years	without	> 10 years	1959
11 : person 11	female	51-65 years	without	5 to 10 years	2004
12 : person 12	male	60-65 years	without	> 10 years	1959
13 : person 13	female	25-30 years	without	< 1 year	2004
14 : person 14	male	60-65 years	with	> 10 years	1979
15 : person 15	female	60-65 years	with	> 10 years	1979
16 : person 16	male	40-50 yeras	with	5 to 10 years	2004

Figure 17: NVivo screenshot of the interviewees as “cases” and their attributes

Due to the fact that anonymity was ensured, the interviewees’ names are not revealed. In the following, self-explanatory abbreviations are attributed to all interviewees that make the discussion of the analysis more vivid. The abbreviation for all men begins with “Mr”, the abbreviation for all women with “Ms”. The number following these two letters signals the number of the interview (1 to 16). The last two numbers separated by an underline stand for the three versions of Company_Z’s occupational pension scheme: “04” for “OPS-2004”, “79” for “OPS-1979”, “59” for “OPS-1959”. This leads to the following “renaming” of the interviewees, as depicted in Figure 17:

person 01	=	Ms1_04,	person 02	=	Mr2_04,	person 03	=	Ms3_04,
person 04	=	Ms4_79,	person 05	=	Mr5_79,	person 06	=	Mr6_04,
person 07	=	Ms7_79,	person 08	=	Mr8_04,	person 09	=	Mr9_79,
person 10	=	Ms10_59,	person 11	=	Ms11_04,	person 12	=	Mr12_59,
person 13	=	Ms13_04,	person 14	=	Mr14_79,	person 15	=	Ms15_79,
person 16	=	Mr16_04.						

4.3.2.1. Interviewee 1 (Ms1_04)

The first interviewee is female. She has been working for Company_Z for six years. Thus, her occupational pension scheme is the OPS_2004 version. Before she came to Company_Z, she had worked for two different companies for about 10 years each. Due to this job history, she has gained experience with other forms of occupational pension schemes. She is between 40 and 50 years old and has managerial responsibility for 10 employees.

Ms1_04 expresses that she has already given thought to her old-age provision. She is confident that her provision will suffice for a “*relatively reasonable pension*”. This confidence arises from the fact that, as a retiree, she will be able to draw on various financial resources. According to her, these include a relatively high statutory state pension, the old-age provision offered by Company_Z, entitlements resulting from occupational pensions of her former employers, her property ownership and the property ownership of her husband. She clearly states that the decisive reason for applying to Company_Z was that she wanted to stay in CITY_1 and she assumed Company_Z to be among the 10 most attractive employers there. The kind of occupational pension scheme on offer, however, had not been among her criteria in compiling the top-10 list of attractive employers.

Although Ms1_04 appreciates Company_Z's occupational pension scheme, she points out that the potential loss of entitlements would not prevent her from leaving the company in the case of substantial changes for the worse; for example, with respect to her satisfaction with her everyday working life.

As outlined on page 68, two answer sheets were used during the interviews to assess the fulfilment of the psychological contract in terms of the various potential elements of such a contract. On the first sheet, the interviewees are asked for their assessment of the extent to which a market-compliant occupational pension scheme was pledged in the course of the employment procedure. On the second sheet, the interviewees are asked for their assessment of the extent to which this has actually been offered. On both sheets, the answer categories of the five-point Likert scale vary between 1 = “to a very low extent” and 5 = “to a very high extent”. Here again, the answers pertaining to the occupational pension scheme are of key interest: Ms1_04 selected answer category 4 on both sheets. This obviously means that, with respect to her pension scheme, she is of the opinion that she has received what she expected and this was on a high level (4 = second highest answer category). When this was scrutinised by the interviewer, this first impression changes: Ms1_04 replies with respect to her assessment of the occupational pension scheme:

“... I believe that this [ANNOTATION: THE OCCUPATIONAL PENSION SCHEME] is secondary, I have to say honestly. Let me say this: When I applied, I was not really promised anything.

4.3.2.2. Interviewee 2 (Mr2_04)

The second interviewee is male (Mr2_04) and aged between 40 and 50. Before he changed over to Company_Z six years ago, he had been working for another insurance company for 15 years. His main reason for his change of employer was to stop commuting between his place of work and his family residence (about 185 kilometres one-way). He was even prepared to accept a step backwards with respect to his hierarchical position and his salary in order to reduce the vast amount of time he spent on the motorway commuting back and forth. In this new position he has no managerial responsibility. Another drawback to his change of employer is that the old-age provision offer of his former employer was even better than Company_Z's old-age provision. Nevertheless, he states that he *“is more than satisfied”* with his current employment situation. He is working in the old-age provision department of Company_Z and is therefore very experienced in the area of old-age provision. This is noticeable throughout the whole interview. He is, for example, aware of the three components of his current occupational pension scheme (OPS-2004). He stated that he knew exactly the loss resulting from the termination of his former employer's old-age provision, but that this loss did not influence his decision to change to Company_Z. Nevertheless, he clearly demanded a pension-scheme offer from his new employer. Although he considers Company_Z's pension scheme attractive, compared with offers from various other companies, he points out that Company_Z's pension scheme would not restrain him from quitting. The aspects that bind him to an employer are a good working atmosphere and interesting job tasks.

Mr2_04 ticked off answer category 4 for the assessment of the pledge and the actual provision of a market-compliant occupational pension scheme. He states:

“... I knew what I could expect here and I knew what I gave up.”

4.3.2.3. Interviewee 3 (Ms3_04)

The third interviewee is female (Ms3_04). She is between 40 and 50 years old and has a job tenure of 10 years. Ms3_04 explains that she started her professional career as a temporary help. At that time she had not been interested in old-age provision, but rather in a conversion of her employment relationship into a permanent position. Later on she points out that, with her increasing age and the expected further increase in financial resources, her old-age provision has gained more importance.

Although she is neither able to name details of Company_Z's old-age provision nor to quantify potential losses with respect to her pension entitlements in the case of her quitting, she states that *"of course"* her occupational pension scheme ties her to Company_Z. Ms3_04 is aware of the fact that the former design of Company_Z's old-age provision (OPS-1979) led to higher pension entitlements than the version of the pension scheme offered to her (OPS-2004). Therefore she believes that the employee-retention effect of OPS-1979 is even higher than that of OPS-2004. With respect to employees with entitlements from OPS-1979, she states:

"And they are, of course, really happy. [...] even more satisfied.

They say: 'Man! Super!'"

With respect to the occupational pension scheme, Ms3_04 ticked off the lowest possible answer category (1) for the pledge and the highest possible answer category (5) for what was actually offered. She explains the 1 by having been at first employed as a temporary help who probably did not come within the occupational pension-scheme regulations. She argues that this might have been the reason for not having been informed about the existence of the occupational pension scheme. Now she is very pleased with it (hence answer category 5). This very positive assessment, however, must be relativised slightly insofar as she ticked off answer category 5 for 12 of the 14 items.

4.3.2.4. Interviewee 4 (Ms4_79)

The fourth interviewee is female. She has been working for Company_Z for nearly 15 years. Before she was permanently employed, she worked on

several occasions as a temporary help at Company_Z. She states that, for this reason, her primary interest was in getting a permanent job with working hours that fitted with her need to care for her children. The old-age provision did not play any role in her choice of employer. Nevertheless, from her current point of view, Company_Z's occupational pension scheme is a real asset. She was pledged OPS-1979 and is aware of the fact that this pension-scheme version entails higher pension entitlements than do later versions of Company_Z's pension scheme. Ms4_79 mentions, for example, that her daughter is also employed at Company_Z and will draw a pension from OPS-2004. Ms4_79 points out that her daughter envies her for being entitled to OPS-1979. Although Ms4_79 appreciates her old-age provision very much, she would be prepared to leave Company_Z if the working conditions were really bad. She states that life may be too short to bear bad working conditions and that she cannot know if she will even reach the retirement age.

Ms4_79 notes that she is not able to answer whether a market-compliant occupational pension scheme was offered to her or not. Thus, she also did not answer the question about the actual provision.

4.3.2.5. Interviewee 5 (Mr5_79)

The fifth interviewee is male. Company_Z was his first employer after his graduation in CITY_1. He is between 40 and 50 years old and has no managerial responsibilities. He states that it has been his aim to stay in CITY_1 and that he has been very happy to be able to start his professional career at Company_Z 23 years ago. At that time he considered Company_Z's old-age provision a "*nice add-on*". He points out that, in the early 1990s, it was already obvious that the statutory state pension alone would not be sufficient to ensure adequate old-age provision. Nevertheless, the existence of Company_Z's occupational pension scheme had not been decisive in his choice of employer. His main reasons for applying to Company_Z in the first place were the fact that Company_Z was located in CITY_1 and that, even then, it was known as an attractive employer. Mr5_79's main reasons for staying at Company_Z are the local anchoring of his family and the generally high workplace security for Company_Z's employees. Due to his tasks at the

company, he is very familiar with details of Company_Z's occupational pension scheme. Thus, he knows that his OPS-1979 is not as good as OPS-1959, but that it is better than the current version of Company_Z's old-age provision. However, he shows understanding for Company_Z's decision to close OPS-1959. With respect to OPS-1959, he states:

"In this day and age, no employer can afford such an occupational pension scheme."

Nowadays, he highly appreciates his OPS-1979. Nevertheless, for him, the binding force of his old-age provision depends on the result of a comparison: If a new employer offers a higher salary that offsets the potential losses with respect to his current pension entitlements, OPS-1979 would not develop a retention effect.

Mr5_79 ticked off answer category 4 for the pledge of a market-compliant occupational pension scheme and answer category 5 for the assessment of what he has received. This assessment indicates "over-fulfilment" and supports his stated appreciation of his occupational pension scheme.

4.3.2.6. Interviewee 6 (Mr6_04)

Interviewee 6 is male and in his late 50s. He has been working for Company_Z for 11 years. His main motivation in applying to Company_Z had been to reduce the extensive professional travelling he had to put up with. Moreover, he preferred an employer located close to his home or at least an employer located in a region with good housing opportunities.

Company_Z's occupational pension scheme did not play a role in his decision to work there. Similarly, his occupational pension scheme does not play a role in his decision to stay. For him, the most important reason for staying with an employer is enjoyment of his tasks.

He has realised that it is not recommended to rely exclusively on the statutory state pension and it is therefore necessary to put additional money aside for his old-age provision. Nevertheless, he is unwilling to put a lot of time into finding out more details about his pension gap or about other old-age provision products. He values his OPS-2004 in that he believes that this occupational pension scheme is better than those offered by his former employers. In

addition, he considers it a “*privilege*” to receive something from his employer, which the employer is not obliged to give.

With respect to the two sheets for assessing pledges and actual offers, he points out that nearly everything was implemented as it had been pledged. He chooses answer category 4 with respect to the occupational pension scheme. Out of the 14 items, there are as many 4s as there are 5s, possibly indicating that other factors may have been more to the fore during his employment relationship.

4.3.2.7. Interviewee 7 (Ms7_79)

The seventh interviewee is female and aged between 40 and 50. She has been working for Company_Z for 27 years. She started her professional career there with an apprenticeship, followed by an additional qualification as a business administrator (“*Fachwirt*”). She notes that, at the beginning of her professional career, the existence of an occupational pension scheme had not been relevant for her and she believes that nowadays such a benefit is of relevance in attracting employees. But she adds that other aspects might be even more important for young employees. She has managerial responsibilities and has observed that younger members of her staff put a high emphasis on flexible working hours and on variety in their tasks. Ms7_79 believes that flexible working hours, the possibility of working from home and the existence of challenging tasks are also among the most important retention factors.

She knows that she is privileged in having OPS-1979, but she does not know the details. She argues that it has not been necessary for her to concern herself with the pension scheme due to her satisfaction with her overall situation at Company_Z and, as a consequence, the absence of turnover intentions. Due to her scant knowledge of the details of her pension scheme, she mentions that she is not really able to assess its retention effect.

On the two answer sheets, Ms7_79 assigns answer category 5 for the pledge of a market-compliant occupational pension scheme and also 5 for the actual offer. Thus, she considers that Company_Z has fully stuck to its pledge. In this

context, she outlines that her pension scheme ties her to her employer. This seems to contradict her former statement that she is not able to assess the retention effect. This seeming contradiction is resolved, however, when she notes that she has vested pension entitlements which will not “*vanish*”.

4.3.2.8. Interviewee 8 (Mr8_04)

The eighth interviewee is male. He successfully applied for a job at Company_Z two years ago and is between 25 and 30 years old. He gives an account, in a very reflective way, of his decision process in changing to Company_Z. For him, as an IT expert, the most important criteria in his choice of an employer were: a) the IT department had to be big enough to offer the chance of personal development; b) the physical location of the IT equipment was in CITY_1. According to him, only Company_Z and two other companies met these two criteria.

The old-age provision of Company_Z was not important in his decision to sign the employment contract there. For him the salary was much more important. Accordingly, the occupational pension scheme would not prevent him from leaving Company_Z if the new employer paid a salary that offset the potential financial losses with respect to his occupational pension scheme, or if the new employer offered a similar scheme. The most important factor tying him to Company_Z is the appreciative working atmosphere which shows him that high effort and high performance are recognised and will probably pay off.

Mr8_04 ticked off answer category 4 for the assessment of the pledge and for the actual provision of a market-compliant occupational pension scheme, whereas he assesses other aspects with a 5 (= “to a very high extent”). He explains his assessment regarding the occupational pension scheme as follows:

“... Other employers also have an occupational pension scheme, for example the federal state. It is called VBL [ANNOTATION: THIS IS THE GERMAN ABBREVIATION FOR ‘PENSION INSTITUTION OF THE FEDERAL REPUBLIC AND THE FEDERAL STATES’]. The terms and conditions are similar. Therefore, this is nothing outstanding, but it is still a good

thing. For this reason, I have assessed it with 4 because this is not THE THING.”

4.3.2.9. Interviewee 9 (Mr9_79)

The ninth interviewee is male and in his early 40s. Roughly 25 years ago, he successfully applied to Company_Z for an apprentice position, following a recommendation by his father who was also employed by an insurance company. After finishing the apprenticeship, he studied alongside his job. Now, he holds a degree similar to a bachelor degree. He is very well acquainted with the details of Company_Z’s products, including the occupational pension scheme. In his current situation he sees the occupational pension as part of his compensation package. This, however, was not the case in his first years of employment at Company_Z.

He is entitled to OPS-1979 and describes this fact as “*luxury*”. Nevertheless, he states that there are other, more important motivators for staying with Company_Z. He characterises himself as being very ambitious. Accordingly, the forces that impel him are career development and creative leeway in fulfilling his tasks. Although he says that the pension scheme does not have a high retention effect for himself, he points out that, for certain groups at Company_Z, the pension might be very important in tying them to their employer. He uses the example of IT specialists to illustrate this statement. For them, a good occupational pension scheme might balance out the below-average salary compared with other employers.

He assessed both Company_Z’s pledge of a market-compliant occupational pension scheme and its actual offer with answer category 5 which indicates that the pledge has been fulfilled to a high level. He illustrates this assessment as follows:

“... it is as such, ...when looking into other companies. Especially, I am entitled to the OPS-1979. That is luxury, isn’t it, what comes in additionally?”

4.3.2.10. Interviewee 10 (Ms10_59)

The tenth interviewee is female. She has held her job for more than 40 years. A few years ago she rejected Company_Z's early-retirement scheme offer. The reasons for her rejection were that she liked her work and did not want to accept pension deductions. She points out that old-age provision had not been an issue when she started working for Company_Z, either from her point of view or from the point of view of her employer. She notes that she is aware of the fact that she belongs to the group of employees with the best version of Company_Z's old-age provision, OPS-1959. At the time of the interview, Ms10_59 is close to retirement age. However, she cannot specify what OPS-1959 means to her in financial terms. According to her, her occupational pension scheme has not been a reason for staying with Company_Z. The most important reasons for staying are that she has always been involved in very interesting projects, the working atmosphere at Company_Z is "*unique*", the level of the overall compensation package and other fringe benefits is good and workplace security is very high.

With respect to the two paper sheets, "pledge" and "actual provision", she remarks that, 40 years ago, the pension-scheme offer was not an issue. It had not been mentioned at all when she had been employed. Today, she would assign answer category 5 to the actual pension-scheme offer. She is very pleased with it.

4.3.2.11. Interviewee 11 (Ms11_04)

The 11th interviewee is female. She has working experience at two other employers and is very grateful that Company_Z employed her even though she was in her late 40s at the time. Looking back at the eight years that have passed since the start of her employment, she is very satisfied with her current professional situation. This assessment is based mainly on the fast development of her professional career during these years. Very soon after her employment, she was promoted to a team-leader position. A further promotion followed very quickly. This career development obviously influences her positive assessment of her employer.

She states that, during her apprenticeship and her former employment at other companies, she had already learned a lot about old-age provision. Thus, when she applied to Company_Z, she knew that Company_Z's occupational pension scheme was very good. She still considers it above average even though she knows that the former versions of the company's old-age provision were even better than her OPS-2004. Nevertheless, the most important reason for applying to Company_Z was her belief that her former working experiences would fit very well with a job at Company_Z. It was more important to her to be able to make use of her special know-how and to find a full-time job than to find an employer that offered a good occupational pension scheme. However, she also states that her attitude towards old-age provision has changed over time. As she gets older, her appreciation of Company_Z's pension scheme is increasing. Currently in her mid-50s, the pension scheme is an important reason for staying at the company.

Ms11_04 rated answer category 5 for the assessment of the pledge and the actual provision of a market-compliant occupational pension scheme. She confirms that she is very satisfied.

4.3.2.12. Interviewee 12 (Mr12_59)

The 12th interviewee is male and in his early 60s. He was employed by another insurance company before changing to Company_Z. He states that he wanted to leave his former employer because of negative construction conditions in the office area. He thought that he could not bear the open-space office and the air-conditioning system for a long time. He decided to apply to Company_Z because this insurance company was one of the three biggest insurance companies in his home town. Mr12_59 has been working for Company_Z for roughly 40 years now and is entitled to OPS-1959. At the time of the interview he is close to his retirement age. He is convinced that his old-age provision offers him a worry-free life as a retiree. The reasons for this assessment are his very good occupational pension scheme, the fact that his wife also has relatively high pension entitlements and the fact that he has an inheritance from his deceased parents. He states that, during the job interview and at the beginning of his working career at Company_Z, the forms of old-age

provision were not addressed. He emphasises that, with his increasing age, the topic of old-age provision gets more and more relevant. Nevertheless, he considers his occupational pension scheme merely as being “*nice to have*”, not as a factor that would have prevented him leaving Company_Z. The most important reason for staying was that he had the chance to achieve a lot in a newly constructed work area that seemed to be tailor-made for him in the sense that his professional tasks and his personal interests merged into one another. Moreover, he has always felt very well supported by his employer. Thus, it had been natural to him to reject two job offers from other companies who tried to headhunt him.

When asked to rate his assessments on the two paper sheets, Mr12_59 repeats that the occupational pension scheme was not addressed when he was first employed and it had taken him some years to realise what was pledged to him. Thus, he ticked off answer category 3 with regard to the pledge. With respect to what he really received (OPS-1959), he assigned a 5, signifying over-fulfilment.

4.3.2.13. Interviewee 13 (Ms13_04)

The 13th interviewee is female. She was employed by Company_Z just after finishing her studies. She is between 25 and 30 years old and has been working for Company_Z for two years. Obviously, she has reflected very carefully on where to apply. An important reason for choosing Company_Z was that the company was located at her place of study. Other reasons were that Company_Z had a good reputation and was well-known as a family-friendly employer. The latter reason has been very important to her because she would like to start a family and, afterwards, to have the chance to work full-time again.

She has actively searched for information about the old-age provision of various potential employers. Thus, she knows that her OPS-2004 is better than the old-age provision in the civil service. However, she believes that all big employers have similar occupational pension schemes to that of Company_Z. For her, the main motivation for staying with Company_Z is that she has

experienced a very positive working atmosphere, including open support for young mothers in their professional development.

She rated answer category '5' for the assessment of the pledge, and the actual provision of a market-compliant occupational pension scheme, because she thinks that she has received exactly what was pledged: a good occupational pension scheme.

4.3.2.14. Interviewee 14 (Mr14_79)

The 14th interviewee is male and will retire in four years' time. He has been working for nearly 34 years for Company_Z. His first application to Company_Z did not result in an employment contract because he rejected the job offer as he would have been earning less than in his current job at that time. After a few years, he applied again. Due to the fact that the framework conditions had changed in Company_Z by that time, he was offered a much higher salary than before. He accepted that offer. Whereas salary was a decisive negotiating topic for him, this was not applicable to old-age provision. He explains this differentiation by pointing out that it was not *"the salary in 40 years"* that mattered but the salary paid out at once. He adds that it also has to be mentioned that the area of old-age provision was not addressed by Company_Z during his job interview or in the ensuing conversations. He states that his occupational pension scheme has been only marginally relevant in his decision to stay. One reason for staying is that he has made his career at Company_Z. However, he points out that he appreciates his OPS-1979 and, with advancing age, it gets more and more important to him.

Mr14_79 states that the occupational pension scheme was not foregrounded by Company_Z and thus he rated the lowest answer, category 1, on the first sheet. With regard to the actual provision of a market-compliant occupational pension scheme, he ticked off answer category 4 due to the following assessment:

"... I belong to the middle of the well-to-do, I am not one with the OPS-1959..." ...

4.3.2.15. Interviewee 15 (Ms15_79)

The 15th interviewee is female. She has been working for Company_Z for nearly 25 years. Before she changed to Company_Z, she had been working about 500 kilometres away from CITY_1. She wanted to move to CITY_1 because she was born nearby. For this reason she wrote several unsolicited applications to companies located there. She states that it was by accident that she was employed by Company_Z. At that time, Company_Z's occupational pension scheme was not important in her decision to accept the job offer. Due to the fact that her entry salary was lower than the salary at her former employer, Company_Z's promise of quick salary increases was more important to her than the pledge of future entitlements to a pension scheme. She adds that, nowadays, she has another view on occupational pension schemes. She states that, in her current situation, her OPS-1979 is definitely a reason to stay, not least because she believes that the level of the statutory state pension will further decrease. She points out that there are other aspects as well, such as the very good working atmosphere, which motivate her to stay.

Ms15_79 is obviously of the opinion that, with respect to a market-compliant occupational pension scheme, she has received more than what was pledged (answer category 5 versus category 4).

4.3.2.16. Interviewee 16 (Mr16_04)

The 16th interviewee is male. He is between 40 and 50 years old and he successfully applied to Company_Z roughly seven years ago. With his application, he followed the recommendation of a friend also employed at Company_Z. Mr16_04 mentions that he did so because he was interested in changing to a job with higher workplace security and a good working atmosphere. OPS-2004 was not important for him at that time as he still holds the view that he himself is responsible for the accrual of adequate old-age provision. For the same reason, he considers his pension scheme as not being an important reason for staying. Reasons for staying are workplace security, the fact that Company_Z is a large company, which also means that there might be better possibilities for personal development, and regular working hours.

Mr16_04 awarded answer category 3 to the assessment of the pledge and the actual provision of a market-compliant occupational pension scheme, indicating a fulfilment of Company_Z's pledge. The reasons for him ticking off only these middling answer categories are as follows:

"Of course, the old versions do not exist any longer. So if you hear of the older employees... and it was obvious that this could not be continued. As compared to where I come from, there, only a small amount was paid and mainly just for the executives [...]. We are well positioned here. But I also know that it will not suffice to live properly, that I myself have to do something additionally..."

Appendix 18 provides a table with a brief summary of key aspects of the interviews with respect to the research questions, differentiated by the responses of male and female respondents.

Further, the interview data were also analysed with a focus on the search for (possibly hidden) themes that might be relevant in the context of this thesis. In a first step, this was done by using a visualisation technique of NVivo. For each of the 16 interview transcripts, charts were generated depicting the 15 nodes used most often for coding the respective source. The visualisation was used to detect possible code patterns for each interviewee (see Appendix 19 for an example).

In a next step, separate matrix queries were run for all nodes (see Appendix 17 for an overview of all nodes) and all attributes of the interviewees (as depicted in Figure 17). Here, the aim was to find code patterns within a group of interviewees characterised by the same attributes (e.g., male) and to detect possible differences in the code frequencies of different groups (e.g., male/female). An example of such a matrix query is depicted in Appendix 20. When the code counts and their patterns indicated possible themes, the author reread the context of the codes across the interviewees involved. This was facilitated by NVivo via a double-click in the respective cell of the query matrix. Such a rereading is necessary because, often, the mere counts of codes are not meaningful.

One main theme with relevance for the context of this thesis turned out to be very important: the notion of Company_Z and its workforce as a “family”. In the first coding session the code “family” had been used mainly for the family in the sense of close relatives. The theme of “family” in the broader sense already emerged in the stories of the interviews presented above. In the next chapters, this theme will be taken up (even though there are no, or few, identifiable differences between groups characterised by different attributes).

At first, it might be surprising that only one relevant theme is highlighted here. However, this is relativised by Boyatzis’s experiences. He reported that he expected to find “meaningful themes in three out of every five studies” and fewer themes than expected “often in one out of those three studies” (Boyatzis 1998: 164).

After having characterised Company_Z (Chapter 4.1) and presented an overview of the results of the quantitative part (Chapter 4.2) and the qualitative part (Chapter 4.3) of the research, in Chapter 5 the quantitative and the qualitative part are discussed jointly.

5. Discussion of the quantitative and the qualitative research findings

Chapter 5 will answer the five sub-research questions (RQ_1 to RQ_5) in separate sub-chapters (Chapters 5.1 to 5.5). This is done by bringing together the quantitative and qualitative parts of the research. The findings are discussed in light of the findings published by other researchers. Chapter 5.6 contains reflections on validity and reliability. In Chapter 5.7, the research findings are briefly summarised. It also outlines how the findings contribute to theory. (The contributions to practice will be presented in Chapter 6.2.)

5.1. Role of occupational pension schemes in taking the job (RQ_1)

This chapter seeks to answer the first sub-research question: **How important is the occupational pension scheme for employees with regard to their decisions to accept a job offer?** Possible impacts of “age” and “gender” are discussed separately in Chapter 5.4.

The quantitative part of the research has shown that the pension-scheme offer is only ranked 12th out of 15 answer options (answers to Question 1). This finding of an incidental role for the occupational pension scheme in the choice of where to work is supported by the results of the qualitative part of the research. All but one of the 16 interviewees state that the occupational pension scheme had not been important in the decision to work for Company_Z. Only Ms11_04, who started working for Company_Z eight years ago, mentions that she was well-informed and that, for her, it was good to know that Company_Z’s pension scheme was a good one. The interviews demonstrate that it has obviously to be taken into account that times have changed. The 15 interviewees who admitted that making arrangements for old-age did not bother them at the time of their employment mentioned at least one out of three main reasons for this. First, 13 interviewees highlighted that other reasons had been more important. (This will be outlined in more detail below). Second, nine interviewees stated that, today, their awareness and/or the legal framework were different to those pertaining at the time of their employment. Mr6_04, for example, explicitly states that, nowadays, he realises that it is not recommended to rely exclusively on the statutory state pension. Mr2_04

focuses on the legal changes that have also gained more and more public interest:

“Today, the employees are bright. And one pursues the topic via the press, now and again. Moreover, one knows in the meanwhile that the employer is obliged to offer salary conversion. And thus, one can request it.”

Third, the interviewees with OPS-1959 and OPS-1979 pointed out, that at the time of their employment, Company_Z did not do anything to promote its occupational pension scheme. This topic was not even addressed in the job interview. Mr12_59, for instance, remembers that he learned about his OPS-1959 one or two years after being employed. Mr14_79 gives thought to possible reasons why Company_Z might have abstained from promoting its OPS-1979 in his job interview:

“It has been introduced shortly before. And ... insofar as the potential superiors and the PR contact person possibly did not labour the point, because everyone knew that those, who had been employed two years earlier, would have got something even better.”

Two other interviewees say that, probably, it would not even have made sense to highlight OPS-1959, because at that time it was nothing outstanding.

From the respondent interviewees, it might be deduced that the importance of the occupational pension scheme does not differ between employees with different versions of it. This hypothesis is tested by analysing the means of the answers of those employees with OPS-1979 and OPS-2004 to the relevant item in Question 4 of the online questionnaire. (It has to be recalled that the online questionnaire was only addressed to employees with OPS-2004 and OPS-1979.)

Hypothesis 1, (H₀)-1: The importance of the occupational pension scheme in decisions on whether or not to accept the job offer of Company_Z does not differ between employees with OPS-1979 and those with OPS-2004.

Entry group	N	Mean	Std. Deviation	Std. Error Mean
AB (with OPS-2004)	164	2.1768	1.03873	.08111
C (with OPS-1979)	143	2.8042	1.17040	.09787

Table 17: Mean values for “occupational pension scheme as a reason for accepting the job offer of Company_Z”, differentiated by employees with OPS-2004 and those with OPS-1979

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
nv4_6 pension reason to accept	Equal variances assumed	3.220	.074	-4.976	305	.000	-.62737	.12608	-.87547	-.37926
	Equal variances not assumed			-4.935	286.360	.000	-.62737	.12712	-.87757	-.37717

Table 18: Independent t-test to test the significance of differences between the means depicted in Table 17

According to Table 17, those respondents with OPS-1979 (group C) agreed, on average, on a higher level (mean = 2.80) than did respondents with OPS-2004 (group AB, mean = 2.18) with the question of whether the occupational pension scheme was an important reason to accept the job offer by Company_Z. The mean difference (0.63) is significant [$t(305) = -4.976$, $p < 0.05$]. Thus, **(H₀)-1** has to be rejected. The effect size is rather low (0.27). For a detailed description of all measures depicted in the SPSS output tables refer to Field (2018: 455) and Bühl (2010: 333); effect size has to be calculated manually.

As a form of triangulation, analysis was also applied to whether or not there were significant mean differences between the answers of group AB and group C to the pension-scheme item in Question 1 (“How important are the following aspects for your decision to work for Company_Z...”?). This is the case. (The results are not depicted here.) This finding supports the contention that the rejection of **(H₀)-1** is valid.

To summarise: although Company_Z’s pension scheme is less important than other aspects in the decision to accept a job offer (refer to Question 1), its

perceived importance differs depending on its design. A pension scheme which leads to higher entitlements (here: OPS-1979 as compared with OPS-2004) is, on average, more likely to have an impact on job-choice decisions than a pension scheme leading to lower entitlements. This finding supports the findings of other researchers. Byrne and Rhodes (2006), for example, carried out focus groups within a single company with different “generations” of pension schemes (defined benefit and defined contribution) and reported that only those employees with membership of the defined benefit plan (which is the plan that leads to higher pension entitlements) regard the company’s pension scheme as a potential recruitment factor. Sutcliffe (2016) broadens the view by stating that the type of pension scheme can attract different employees. He argues that, for employers, final-salary defined benefit plans have an advantage over defined contribution plans in that they “attract workers who expect to stay with the company and end their career on a high salary, i.e. would-be high fliers who expect to remain with the company” (Sutcliffe 2016: 47). Such “sorting effects” on “job stayers” engendered by final-salary plans are also reported by Luchak and Gellatly (2001). Rabe (2007), however, notes that such “sorting effects” might exist for jobs with pension coverage in general (and therefore not only for defined benefit plans). Nevertheless, for all these findings an important caveat should be kept in mind: the relevance of the type of pension scheme for attracting employees is, to a high degree, dependent on the potential employees’ awareness of differences between various pension schemes and on their awareness of whether or not pension coverage is provided by a potential employer.

From the answers to Question 1 of the online survey conducted for this thesis, it can be deduced that not only did the occupational pension scheme not play an important role in decisions to take a job, financial aspects did not do so either. The answer option “the total amount of your compensation components” ranked ninth out of 15 possible options. However, this rank is higher than the rank for the occupational pension scheme (ranked 12th). This order is supported by the interviews. Three interviewees stated that “salary” played an important role during the job interview. Two of them would not even have signed the employment contract if Company_Z had not improved the

initial salary offer. On average, pension schemes were ranked lower than other financial aspects regarding their importance in employees' job-choice decisions and this can also be found in the academic literature. Among the few researchers who have conducted empirical studies in this field are Loretto, White and Duncan (Loretto et al. 2000, Loretto et al. 2001). They jointly conducted two studies with different target groups as respondents. The respondents in the financial sector (Loretto et al. 2000) and the undergraduate business students (Loretto et al. 2001) both placed the answer option "occupational pension scheme" behind salary-related aspects ("annual review of salary" and "competitive salary" for employees working in the financial sector and "good pay" and "reward based on merit" for the undergraduate students). To qualify these assessments, however, it has to be mentioned that even those respondents working in the financial sector had limited knowledge of the details of their pension scheme (Loretto et al. 2000).

Both the quantitative part of the research for this thesis and the qualitative part highlight that some non-financial aspects have the highest relevance for job applicants. (This contrasts with employers' assumptions in the study by Terry and White 1997.) Nevertheless, the emphasis is slightly different. The aspects considered most important in the quantitative part are (in this order) 1. "workplace security", 2. "work content", 3. "personal impression of the persons who were in contact with you during your application process", 4a. "creative leeway", 4b. "further career opportunities" and 4c. "flexibility of working hours". In the interviews, however, it is mentioned by nearly half the interviewees that it had been an important wish to work in CITY_1. Out of these interviewees, at least five seem to have had a well-conceived approach for applying: their first criterion had been to work in CITY_1 and the second had been to find the best employer in the city. One third of all interviewees mention that Company_Z's outstanding reputation was well-known beyond CITY_1. They report that Company_Z was widely acknowledged as a company that did much for its employees and had a very good working atmosphere. One interviewee states that the workplace security which he attributes to Company_Z had been very important to him. His assumption that Company_Z stands for very high workplace security (in general and also in particular with respect to its site

safety in CITY_1) is mainly predicated on the fact that Company_Z is a registered association and, thus, an autonomous company, headquartered in CITY_1.

In the quantitative research for this thesis, the great importance of “workplace security” as a criterion for taking a job supports the findings of other studies. For example, according to a study conducted by Towers Watson (now: Willis Towers Watson), which was published by Ballhausen et al. (2014), the most important drivers for attracting employees (from the employees’ perspective) in Germany were the following, headed by “workplace security”: 1. “workplace security”, 2. “base salary”, 3. “challenging work”, 4. “high autonomy”, 5. “workplace can be reached conveniently”, 6. “outstanding employer image” and 7. “career opportunities” (Ballhausen et al. 2014). (It has to be noted that there was no answer option for pensions.) The relevance of workplace security for job choice may be highly dependent on contextual factors such as the state of the economy or employment law (in particular, dismissal protection). Nevertheless, workplace security was also considered an important factor in the two studies by Loretto et al., mentioned earlier (2000, 2001). This is remarkable because these studies were conducted roughly 15 years earlier than the empirical study for this thesis and the study conducted by Towers Watson. Moreover, the latter studies were conducted in Germany and the former in the United Kingdom.

Interestingly, the survey by Towers Watson (Ballhausen et al. 2014) also reveals the high importance of the location of the company, which, as described above, turned out to be an important aspect in the interviews conducted for this thesis. The same is true of “outstanding employer image”.

After summarising the employees’ views of their reasons for applying to Company_Z and after comparing these with results of other empirical studies, there now follows an outline of how Company_Z presents itself on its website to potential employees.

Figure 18 depicts the relevant part of Company_Z’s website:

Wir als Arbeitgeber	We as employer
Familienfreundlichkeit	Family friendliness
Gesundheit & Soziales	Health & Social Affairs
Übersicht	Overview
Arbeitsplatz	Working place
■ Sozialleistungen	■ Fringe benefits
Gesundheitsförderung	Health promotion
Beratungsangebote	Consulting services
Betriebssport	Company sports
Personalentwicklung	Personnel development
Auszeichnungen	Awards
Standort	Company's site

Figure 18: Company_Z's introduction as an employer on its website
(The original version in German is on the left, the translated version on the right.)

Obviously, Company_Z puts its emphasis on the following five “headings” to present itself as an attractive employer: “Family friendliness”, “Health and Social affairs”, “Personnel development”, “Awards” and “Company’s site”. On the website, its pension-scheme offer is explicitly mentioned under “Health and social affairs/Fringe benefits”. There it says:

*“The fact that the employees appreciate their employer to such a large extent is also predicated upon the fair performance-based compensation, **the occupational pension scheme** and the flexible working hours models. Moreover, Company_Z offers many other attractive aspects like workplace health management, an own canteen and preferential staff conditions” [annotation: translated and printed partly in bold by the author of this thesis; source: Company_Z’s website; last access: 28.12.2017].*

Thus, Company_Z obviously considers its occupational pension scheme an important detail for potential applicants. However, on the website, no details are given. This might indicate that Company_Z believes that the mere existence (and not the details) of a pension scheme is (are) of relevance for potential applicants. This coincides with some of the assertions of the

interviewees with respect to their information needs during the application phase. For example, Ms1_04 notes:

“I do not have to search in ‘check24’ for various forms of old-age provision or to find out more about it via the internet, or to google, or something like that, I do not do that.”

In contrast to this assertion, at least two interviewees tried to find out details of the pension-scheme offer before they signed the employment contract.

As depicted in Figure 18, Company_Z is obviously aware of the fact that family friendliness, possibilities for career development and even location are of special relevance to attracting employees. With respect to the latter, Company_Z highlights the high quality of living attributed to CITY_1 by delivering detailed pieces of information about CITY_1 (history, economic power, leisure-time possibilities, etc.).

According to an employee survey conducted by Company_Z in 2015, 98 % of employees would decide again to work for Company_Z. This result supports the interviewees’ very positive assessments of their choice of employer.

5.2. Relating occupational pension schemes to organisational commitment (RQ_2)

Chapter 5.2 presents the discussion of the second research question: **To what extent does the employees’ satisfaction with the occupational pension scheme translate into continuance, affective or normative commitment?**

As delineated in Chapter 4.2.2, organisational commitment is measured with a three-dimensional scale for affective, normative and continuance commitment. The analysis of the relationship between the employees’ assessment of the occupational pension scheme and organisational commitment will be conducted via several regression analyses. Chapter 4.2.2 also delineated why it was considered expedient to conduct further analyses separately for group AB (= employees with OPS-2004) and group C (= employees with OPS-1979). In Appendix 15, it is shown that (despite the split of the sample into two sub-groups and despite the high number of predictors) the sample size for the

regression analyses is large enough to gain a high level of statistical power (> 0.8).

In the following section, details of the regression analyses are outlined. The fulfilment of the statistical assumptions for running regression analyses is confirmed at the end of this chapter.

Regression analysis is a mathematical way of modelling the linear relationship between a dependent variable and one or more independent variables (Schendera 2008). In this thesis, it is of interest as to whether Company_Z's pension scheme contributes to the formation of employees' affective, normative or continuance commitment. Thus, for each of the two pension-scheme groups (group AB and group C), three hierarchical linear regression analyses are carried out with varying dependent variables. In the first two regression analyses (for group AB and group C), the dependent variable is CFA_LV2_CC which is the variable that contains the respondents' factor scores for "continuance commitment". In the next two regression analyses (again for group AB and group C), the dependent variable is CFA_LV1_AC which is the variable with the factor scores for "affective commitment". Consequently, the third pair of regression analyses is carried out with CFA_LV3_NC as a dependent variable, containing the factor scores for "normative commitment".

The independent variables are:

- a) all variables used to measure the employees' current satisfaction with various aspects of their employment situation (see Question 2 of the online questionnaire): (1) image of Company_Z, (2) total amount of the compensation components, (3) variable compensation components, (4) pension scheme, (5) work content, (6) creative leeway concerning the work, (7) career opportunities, (8) professional relationship with the hierarchical superior, (9) professional relationship with colleagues, (10) working atmosphere, (11) workplace security, (12) work-life balance,
- b) biographical variables (see Question 10): (13) sex, (14) salary groups, (15) age, (16) organisational tenure (in years).

The variables listed under a) are all variables that measure the employees' satisfaction with a specific facet of the employment relationship. An important

reason for choosing these variables is the assumption that Company_Z might be in a position to influence employees' satisfaction with these facets. Thus, if these satisfaction variables prove to be significant predictor variables for the dimensions of organisational commitment, higher satisfaction with a specific facet is likely to translate into higher commitment. As already mentioned in Chapter 2.2.2., it has to be noted that up to the present day, there is no consent in the academic literature in respect of the causal relationship between job satisfaction and organisational commitment. In order to make this lack of consent explicit, authors like Mathieu and Zajac (1990) or Meyer et al. (2002), subsumed "job satisfaction" under correlates of commitment. Vandenberg and Lance (1992) summarised that there was empirical evidence for four "competing models" (Vandenberg and Lance 1992: 154) with respect to the relationship between organisational commitment (OC) and job satisfaction (JS): a) job satisfaction causally antecedes organisational commitment ($JS \Rightarrow OC$), b) OC causally antecedes JS ($OC \Rightarrow JS$), c) there is a reciprocal relationship ($JS \Leftrightarrow OC$) and d) there is no causal relationship between OC and JS. Vandenberg and Lance acknowledge that the first of these four models, which assumes that job satisfaction antecedes organisational commitment, is the "most widely accepted" (Vandenberg and Lance 1992: 154). This supports the contention that the approach chosen in this thesis is not undisputed in the literature but is considered to be the most legitimate. (A brief summary of these four models is given in Appendix 16, Part A.) It is important to add that, for regression models, it is assumed that the predictor variables are measured without error. Thus, it is not possible to reverse the direction of the regression analyses in order to prove that the discovered relationships are not bi-directional.

As can be deduced from Appendix 12 (tables 2a to 2c), the correlations between the various facets of satisfaction are relatively low (first 12 variables). This is in line with, for example, Spector (1997: 4) who also found that the correlations among the facets of job satisfaction "tend to be rather small". Thus, it can be argued that there is no obstacle to using these variables as independent variables for the regression analyses. The variable which measured "satisfaction with the entire situation" is not included as an

independent variable in order to avoid contentual overlap. As depicted in the correlation matrices in Appendix 12, this variable is the one that is significantly correlated with nearly all other satisfaction variables, even if only to a low or medium extent (see the last table of Appendix 13 for an interpretation of the levels of the correlation coefficient).

The biographical variables under b) serve as control variables in the regression analyses.

The scale of measurement of these independent variables is delineated in Appendix 14.

A hierarchical regression analysis can be seen as the concatenation of various single regression analyses (“models”) where the independent variables are included in blocks according to a predefined sequence (Bühner and Ziegler 2017). The advantage of such hierarchical regression analyses is that the researcher is able to analyse whether or not the inclusion of further independent variables will improve the predictive power (Bühner and Ziegler 2017). In the regression analyses conducted for this thesis, the first block of variables (= model 1) consists of the biographical variables: age, tenure, salary and sex. For the second model, all variables measuring satisfaction with facets of the job or facets of the employment relationship are included with the exception of the variable “satisfaction with pension scheme”. This focal pension-related variable is added in the third model. For this sequential inclusion of variables in SPSS, the “Enter”-method was used. For a discussion of the pros and cons of stepwise methods versus the “Enter”-method, see, for instance, Chatterjee and Price (1995), Cohen et al. (2003) and Field (2018).

Continuance Commitment (CFA_LV2_CC) as dependent variable

The presentation of the results of the regression analyses begins with CFA_LV2_CC (= variable which contains the factor scores of the continuance commitment factor) a dependent variable.

Table 19 depicts the results for group AB (= employees with OPS-2004) on the left and the results for group C (= employees with OPS-1979) on the right.

a) Group AB

b) Group C

Variables	Standardised Beta Coefficients			Standardised Beta Coefficients		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
nv_age	.003	-.042	-.028	.067	.091	.089
nv_tenure years	.298 ***	.346 ***	.345 ***	.155	.167	.170
nv10U10_salary	-.158	-.127	-.097	-.170	-.156	-.153
nv10_Dum_male_1	-.167	-.097	-.102	-.181	-.179	-.180
nv2 image		.006	-.024		.083	.077
nv2_2 compensation		.305 ***	.289 **		.248 *	.241 *
nv2_3 variable comp		.011	-.038		-.110	-.108
nv2_5 work content		.010	.022		-.187	-.186
nv2_6 leeway		.011	-.015		.231	.221
nv2_7 career opportunities		.222 **	.217 **		.169	.172
nv2_8 relation colleagues		-.080	-.074		.047	.045
nv2_9 relation superior		.074	.071		-.133	-.126
nv2_10 working atmosphere		.029	.037		-.037	-.038
nv2_11 workplace security		-.130	-.135		-.031	-.029
nv2_12 work-life-balance		.035	.028		-.018	-.023
nv2_4 pension scheme			.152			.028
R ² (adjusted)	.108	.239	.250	.089	.121	.114
R ²	.132	.314	.330	.117	.223	.224
F	5.58 ***	4.16 ***	4.15 ***	4.16 **	2.18 *	2.04 *
Δ R ²	.132	.183	.015	.117	.106	.001
Δ F	5.58 ***	3.29 ***	3.12	4.16 **	1.41	0.09

* p < 0.05; ** p < 0.01; *** p < 0.001

Table 19: Hierarchical regression analyses with continuance commitment as dependent variable

Before these results are commented on, it is best to give a brief description of how Table 19 is structured.

The predictor variables are enumerated in the first column with their respective labels as used in SPSS. They are separated into three groups by thin lines. These three groups represent the three “models” as outlined above. Table 19 depicts the standardised Beta coefficients and the respective significance levels for each variable (two-tailed significance levels because of possible positive and negative relationships between independent variables and the dependent variable). The absolute amount of the standardised Beta coefficients indicates the importance of the respective predictor variables for the prediction of the independent variable (Bühl 2010). The positive sign of a standardised Beta coefficient shows that the impact is positive: for example,

higher satisfaction with “compensation” leads to higher factor scores for the continuance commitment factor.

The five rows at the bottom of Table 19 list further measures that are important for the interpretation of the results and that also serve as indicators for the fit of the models. “ R^2 adjusted” stands for the adjusted coefficient of determination. This measure refines “ R^2 ” (= coefficient of determination = value [multiplied by 100] which specifies how much of the “variability in the outcome is accounted for by the predictors”, Field 2018: 410). The adjustment of R^2 allows for the sample size and the number of predictors (Backhaus et al. 2016). “F” is the value of the F-ratio. A significant value means that the respective model can be considered as being useful for interpreting the relationships between the variables included in the respective model. An increase in the value of the F-ratio from one model to the next indicates that the latter will be able to predict the outcome better than the former (Field 2018). “ ΔR^2 ” depicts the change of R^2 from one model to the subsequent model. The last row “ ΔF ” shows whether or not these changes of R^2 are significant (Field 2018). Thus, whereas the row “ ΔF ” indicates significant changes from one model to the next, the row “F” indicates whether or not the whole model is significant.

In the following, the relevant results of the hierarchical regression analysis with continuance commitment as dependent variable will be discussed.

For group AB, the final model 3 comprises three significant predictor variables (named in order of the magnitude of the Beta coefficients): “tenure”, “compensation” and “career opportunities”. The significance of these variables meets the expectations because all three variables have in common the fact that there is something at stake if the employee would leave the company. For example, an employee with a long organisational tenure might have invested a lot in training predominantly relevant within the organisational context of Company_Z. Thus, this acquired knowledge might lose its value for the employee in the case of a change of employer. In their often cited meta-analysis, Mathieu and Zajac (1990) argue that there has to be a distinction between organisational tenure and job tenure and that the former is likely to be related to a greater extent to continuance commitment than the latter which

seems to be more closely related to affective commitment. In the work of other authors, it is contested as to whether organisational tenure can be seen as an indicator for accumulated investments and therefore as an antecedent of continuance commitment. Meyer and Allen (1984), for example, who obviously refer to organisational tenure, argue that tenure is rather an antecedent of affective commitment than of continuance commitment. Reichers (1986) and Cohen (1993) broaden the view by allowing for the developmental stage of the employees' careers when analysing the relationship between tenure and organisational commitment. Since this thesis focuses on occupational pension schemes, this discussion will not be enlarged upon. For the sake of completeness, it is only added that "organisational tenure" is not significant for group C. This could have been expected due to the fact that, with respect to group C, the online questionnaire only addressed employees hired between the years 2001 and 2003. Thus, in group C, organisational tenure can only differ in this small range.

For both pension-scheme groups, "satisfaction with the total amount of compensation components" is a significant driver for continuance commitment, whereas for both groups "salary" is a non-significant predictor variable which even has negative standardised Beta coefficients. The negative coefficients for "salary" indicate that, with increasing salary, the formation of continuance commitment decreases. An explanation may be that, with increasing salary, the financial dependency on one's employer may decrease. The seeming contradiction regarding the different signs of the standardised Beta coefficients of the predictors "salary" and "satisfaction with total amount of compensation components" may be resolved by the explanation that (above a certain minimum income level) it is not the absolute size of one's salary that ties an employee to an employer, but the satisfaction with it which might include a feeling of being treated overly generously in this financial exchange situation with Company_Z.

Due to the special focus of this thesis, it is of great interest whether or not the pension-related variable proves to be a significant driver of continuance commitment and whether this might differ with respect to the two pension groups (group AB and group C). Regarding the latter, the reader has to keep in

mind that the optimisation of the scales for the three dimensions of organisational commitment led to different scales for continuance commitment for group AB as compared with group C. Moreover, for group C, the continuance scale is comprised of only two items. Thus, comparisons between groups AB and C for the dimension of continuance commitment will only deliver results that should be interpreted with due care.

Contrary to expectations, the predictor variable “satisfaction with occupational pension scheme” does not emerge as a driver of continuance commitment (either for group AB or for group C). Adding the pension-related variable to the hierarchical regression analyses (model 3) increases the explained variance only to a small extent (from 31.4 % to 33.0 % for group AB and from 22.3 % to 22.4 % for group C). The low and non-significant impact of the variable “satisfaction with occupational pension scheme” could be explained as follows: As was shown in Chapter 4.2.2 and in Chapter 4.3.2, the employees’ knowledge of the pension scheme was quite low. But if the employees do not know, for example, the potential pension losses in the case of a change of employer, it will be unlikely that the pension scheme engenders continuance commitment. Ms7_79, for example, in answer to the question whether she could gauge the magnitude of potential losses, said:

“I have never considered it. [...] I even do not know if everything of my occupational pension scheme at Company_Z would be at stake or if there would be a preservation of vested rights instead.”

The employees’ lack of knowledge about the pension scheme does not preclude their being satisfied with it (for example, based on the vague idea that it is a good pension scheme), but it is likely to reduce the relevance of the pension scheme as a financial tie to the employer.

One might have expected that, at least for pension group C, “satisfaction with pension scheme” could prove to be a significant predictor of continuance commitment because (as will be shown in Chapter 5.3) the respondents in group C agreed to a significantly higher level, with the statement that the occupational pension scheme was an important reason for staying, than did the respondents in group AB. But this seemingly surprising result might be

explicable. Although the employees in group C explicitly emphasise that their pension scheme is an important reason for staying, it is not necessarily the case that this view contributes significantly to commitment. Perhaps these employees consider their excellent pension scheme merely as a building block in a financially secure employment option that has nothing to do with “being committed”.

The finding that there is no significant relationship between the pension-related predictor and continuance commitment seems to be opposed to the finding of Luchak and Gellatly (2001: 394) who stated that “higher accruals under the pension plan increased continuance commitment but reduced affective commitment”. But due to the fact that they used a measure for a potential change in pension entitlements as an independent variable – and therefore a clearly different variable as compared with the variable used in this thesis – it is not surprising that the results also differ.

For group AB, the third variable with a significant impact on continuance commitment is the predictor “satisfaction with career opportunities”. This might result from the employees’ perceptions that previous efforts in their job might not pay off in the case of a change of employer. This variable is non-significant for group C. The reason for this might be that the employees belonging to group C are more likely to have already reached the position they had aimed at so, that their individual investments in their career might have already paid off.

The negative sign of the Beta coefficient for the dummy-coded variable “sex” has to be interpreted as follows: since male respondents were coded with “1” and female respondents” with “0”, the negative sign means that the mean of the dependent variable “continuance commitment” is lower for men than for women. However, for both groups, the mean difference is not significant.

After having presented the results of the two regressions on continuance commitment, the next section deals with the results of the regression analyses on affective commitment.

Affective Commitment (CFA_LV1_AC) as dependent variable

a) Group AB

b) Group C

Variables	Standardised Beta Coefficients			Standardised Beta Coefficients		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
nv_age	.106	.042	.055	-.067	-.049	-.038
nv_tenure years	.108	.144	.143	-.047	-.007	-.024
nv10U10_salary	-.226 *	-.177	-.149	-.008	-.091	-.106
nv10_Dum_male_1	.181 *	.158	.154	-.054	.028	.034
nv2 image		.284 ***	.256 **		.178 *	.208 *
nv2_2 compensation		.138	.123		.196	.229 *
nv2_3 variable comp		-.024	-.068		.144	.132
nv2_5 work content		.092	.103		.181	.174
nv2_6 leeway		.117	.093		.123	.173
nv2_7 career opportunities		.082	.077		-.005	-.022
nv2_8 relation colleagues		-.082	-.077		.123	.134
nv2_9 relation superior		.158	.155		-.118	-.149
nv2_10 working atmosphere		-.032	-.025		.066	.068
nv2_11 workplace security		.035	.031		.052	.043
nv2_12 work-life-balance		.021	.015		-.060	-.038
nv2_4 pension scheme			.138			-.135
R ² (adjusted)	.028	.217	.226	-.020	.303	.313
R ²	.054	.295	.308	.012	.384	.398
F	2.10	3.79 ***	3.75 ***	.366	4.74 ***	4.67 ***
Δ R ²	.054	.241	.013	.012	.373	.014
Δ F	2.10	4.22 ***	2.51	.366	6.27 ***	2.59

* p < 0.05; ** p < 0.01; *** p < 0.001

Table 20: Hierarchical regression analyses with affective commitment as dependent variable

From Table 20, it can be deduced that, in the final model 3 for group AB, only one variable is proved to be significant. This is the variable “satisfaction with image”. This fits very well with the definition of affective commitment given in Chapter 2.2.1 and is supported by the qualitative part of this thesis. For example, Ms3_04, stated:

“If you are looking for a new flat, it is a good thing to mention that you work for Company_Z”.

Obviously, Ms3_04 is proud of the observation that Company_Z is well known for its good image. This experience of the positive practical consequences of the outstanding image of Company_Z seems to reinforce Ms3_04’s emotional

attachment to her employer. “Image” is also one of the two significant independent variables for group C.

The variable “satisfaction with the occupational pension scheme” is, for both pension groups, not a significant predictor variable for affective commitment. It could be argued that this could have been expected due to the fact that the awareness of potential losses of pension entitlements is, by definition, related to continuance commitment. However, as discussed in Chapter 4.2.2 and as will be elaborated on in Chapter 5.3, the pension scheme is also valued as a sign of a caring employer. This assessment, however, obviously does not translate into significant relationship between “satisfaction with the pension scheme” and affective commitment.

The variable “satisfaction with the occupational pension scheme” increases the explained variance in the regression analyses on affective commitment only slightly from 29.5 % to 30.8 % (group AB) and from 38.4 % to 39.8 % (group C). For group C, but not for group AB, the variable “satisfaction with the total amount of compensation components” is not only significantly related to continuance commitment but also to affective commitment. An explanation could be that, for the employees of group C, non-financial aspects, such as the feeling of being paid fairly or the notion of a caring employer, are also of relevance and this translates into affective commitment. This effect might be reinforced by the pension scheme. The employees in group C (because of their higher pension entitlements and the fact that they are aware of these) might be more inclined than the employees in group AB to subsume fringe benefits, such as their pension scheme, under “compensation package”. Thus, for group C, the notion of a caring employer might influence the relationship between “satisfaction with the total amount of compensation components” and affective commitment to a higher extent than it does for group AB (although the level of agreement with the statement “Company_Z offers its pension scheme primarily for reasons of care for its employees” does not differ significantly between group C and group AB). However, this possible explanation cannot be justified by the empirical data.

Normative Commitment (CFA_LV3_NC) as dependent variable

In the following section, the results of the final two regression analyses on normative commitment are presented.

a) Group AB

b) Group C

Variables	Standardised Beta Coefficients			Standardised Beta Coefficients		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
nv_age	.032	-.019	-.012	.135	.151	.151
nv_tenure years	.119	.197 *	.197 *	.024	.020	.020
nv10U10_salary	-.243 *	-.172	-.156	-.078	-.215	-.215
nv10_Dum_male_1	.098	.112	.109	.085	.136	.136
nv2_image		.153	.137		.123	.122
n2_2 compensation		.186 *	.178		-.142	-.142
nv2_3 variable comp		-.027	-.053		.268 *	.268 *
nv2_5 work content		-.027	-.021		.144	.144
nv2_6 leeway		-.038	-.052		.159	.158
nv2_7 career opportunities		.164	.162		-.057	-.057
nv2_8 relation colleagues		-.125	-.122		.003	.003
nv2_9 relation superior		.142	.140		.201	.201
nv2_10 working atmosphere		.141	.145		-.135	-.135
nv2_11 workplace security		-.036	-.038		.048	.048
nv2_12 work-life-balance		.129	.126		-.058	-.058
nv2_4 pension scheme			.081			.002
R ² (adjusted)	.021	.155	.153	-.008	.107	.099
R ²	.047	.239	.243	.023	.210	.210
F	1.80	2.84 **	2.71 **	0.74	2.03 *	1.88 *
Δ R ²	.047	.192	.004	.023	.187	.000
Δ F	1.80	3.11 ***	0.80	.74	2.46 **	.001

* p < 0.05; ** p < 0.01; *** p < 0.001

Table 21: Hierarchical regression analyses with normative commitment as dependent variable

As can be deduced from Table 21, for group AB, the only variable that turns out to be a significant predictor is “tenure”. Thus, this variable is not only a significant predictor variable for “continuance commitment” (see Table 19) but also for normative commitment. This result seems to be explicable. With increasing tenure, it is more likely that the employee has experienced something very positive that could prompt the employee to think that she/he has to return something to Company_Z.

For group C, the only significant predictor of normative commitment is “satisfaction with variable compensation”. Here, again, employees might feel obliged to return something to Company_Z.

The pension-related variable, which is added in the third stage of the hierarchical regression analyses, is a non-significant predictor of normative commitment. Accordingly, the addition of this variable has little to no effect on the explained variance (an increase from 23.9 % to 24.3 % for group AB and no increase for group C; here the explained variance remains at 21.0 %).

After having presented the results of all six regression analyses, this section concludes with the summarising remark that in none of these six regression analyses did the independent variables “age” and “sex” turn out to be significant predictors. The relatively low impact of demographic variables on organisational commitment is in line with the summarising results of a meta-analysis by Meyer et al. (2002). This will not be elaborated on because the focus of RQ_2 is on the relevance of the pension-related independent variable for organisational commitment.

Checking the assumptions for all six regression analyses

As shown in Table 19 through to Table 21, the results of the F-tests signal that all regression analyses delivered statistically significant models. R^2 exceeds 10 % in all full models, which Falk and Miller (1992) consider, as a rule of thumb, to be a minimum requirement.

For the regression analyses, further checks have been performed to ascertain whether the statistical assumptions for these analyses have been met. These have been done by following the recommendations given by Field (2018: 385 onwards). A detailed account of these verifications is given in Appendix 16. It is shown that all assumptions are met.

5.3. Role of occupational pension schemes in staying (RQ_3)

Chapter 5.3 aims to answer the third sub-research question: **To what extent is the occupational pension scheme relevant to the employees' decisions to stay with their employer?**

In this thesis, the retention effect of Company_Z's occupational pension scheme has already been discussed several times. In this section, the various aspects are brought together (with the exception of differences dependent on age and gender; see Chapter 5.4). Before this is done, it should be mentioned that binding employees to the employer is not an end in itself. Employers might even be relieved if badly performing employees resign. Thus, it might be an expedient retention-management strategy to differentiate between core and peripheral employees (Terry and White 2000b). This aspect will be taken up in Chapter 6 (see, for instance, Figure 20). Moreover, due to the ever more rapidly und unpredictably changing environment of employers it is getting more and more important to them to be able to react in a very flexible manner. This implies that the employers' needs with respect to employees' knowledge and skills might rapidly change as well. Hales and Gough, for example, state that "flexibility has become the employers' mantra" (Hales and Gough 2003: 326). This aspect will also be considered in more detail in Chapter 6.

Returning to the findings of this thesis, Figure 13 (see page 94) revealed that the occupational pension scheme seemed to be of minor importance as a reason for staying with Company_Z. The employees were asked about their agreement with the following statement: "The occupational pension scheme of my employer is an important reason for me for staying with Company_Z". Measured on a five-point Likert scale (from 1 = "strongly disagree" to 5 = "strongly agree"), the mean was 2.86. A closer look at the respective answer options shows that nearly 17 % of the interviewees "strongly disagreed", whereas only 8 % "strongly agreed" (the remaining percentages are nearly equally distributed over answer options 2 to 4). However, when the distribution of the answer options is analysed separately for employees with OPS-1979 (entry group C) and OPS-2004 (entry group AB), a more nuanced picture emerges: The percentages of employees who "strongly disagree" (group C: 8 %, group AB: 23 %) and who "strongly agree" (group C: 13 %, group AB:

4 %) differ to a large extent between these two groups. Thus, it can be assumed that the occupational pension scheme has a higher retention effect for employees with OPS-1979 than for those with OPS-2004. This is tested as follows for statistical significance:

Hypothesis 2, (H₀)-2: The relevance of the occupational pension scheme for decisions on whether or not to stay with the company does not differ between employees with OPS-1979 and those with OPS-2004.

Entry group	N	Mean	Std. Deviation	Std. Error Mean
AB (with OPS-2004)	163	2.4663	1.11821	.08759
C (with OPS-1979)	144	3.3194	1.14448	.09537

Table 22: Mean values for “occupational pension scheme as a reason for staying”, differentiated by employees with OPS-2004 and those with OPS-1979

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
nv4_7 pension reason to stay	Equal variances assumed	0.008	.930	-6.598	305	.000	-.85319	.12930	-1.10762	-.59875
	Equal variances not assumed			-6.589	298.500	.000	-.85319	.12949	-1.10801	-.59836

Table 23: Independent t-test to test the significance of differences between the means depicted in Table 22

According to Table 22, the respondents with OPS-1979 (group C) agreed on average to a higher level with the statement “The occupational pension scheme of my employer is an important reason for me for staying ...” (mean = 3.32) than did respondents with OPS-2004 (group AB, mean = 2.47). The mean difference (0.85) is significant [$t(305) = -6.598$, $p < 0.05$]. Thus, (H₀)-2 has to be rejected. The effect size is medium (0.35). This result corresponds with the expectations because OPS-1979 objectively leads to a higher old-age provision than does OPS-2004.

In the analysis of the qualitative part of the empirical research (which also allowed for OPS-1959) it becomes evident that the different versions of

Company_Z's occupational pension scheme are a subject of conversation among employees. Ms4_79, for example, whose daughter is also employed at Company_Z, states:

"There is a great difference between OPS-2004 and OPS-1959.

And, yes, moreover, my daughter tells me: 'You come off well.'"

Mr9_79 aims at the different character of OPS-1979 versus that of OPS-2004:

"OPS-1979 is a real pledge. And not: Wait and see what the result will be ..."

Obviously, he holds the view that his version of the occupational pension scheme is preferable to OPS-2004.

Mr12_59 highlights the value of OPS-1959 as follows:

"Half a year ago, I have requested a mathematical evaluation: It has been a real pleasure."

In the course of the interview, it becomes evident that Mr12_59 is convinced that he is privileged.

The findings for Company_Z that the design of the occupational pension scheme, and the employees' discussions about various "generations" of pension schemes, play an important role in its retention effect is in line with the findings of other researchers. Gough and Hick (2009: 166), for instance, state: "Defined-benefit scheme members appeared to place a particular value on their pensions and expressed a reluctance to consider any change of employment which would threaten their privileged status as defined-benefit scheme members." In the same vein, Byrne and Rhodes (2006: 151) reported that "Some DB scheme members noted that they knew they would no longer be covered by DB for future accrual if they moved job and thus the DB scheme effectively prevented them leaving." Rabe (2007) analysed two other features of pension schemes. She demonstrated that decreasing vesting periods modestly increased the low impact of vesting periods on employees' mobility rates and that this effect "is smaller than the effect of an indexation of deferred benefits" (Rabe 2007: 549).

With regard to the empirical data of this thesis, it might be argued that the rejection of **(H₀)-2** (= importance of the pension scheme on the decision on whether or not to stay with the company is independent of the pension scheme design) could have been influenced by job tenure because those employees with OPS-1979 have, on average, a longer job tenure (Ø job tenure: 13 years) than those with OPS-2004 (Ø job tenure: 6.5 years). The impact of job tenure on employees' assessment of the role of occupational pension schemes as a retention factor is tested via hypothesis 3, **(H₀)-3**:

Hypothesis 3, (H₀)-3: The importance of the occupational pension scheme in decisions on whether or not to stay with the company does not differ between employees with short job tenure and those with long job tenure.

The analysis is restricted to groups A and B because these two groups have the same pension scheme (OPS-2004). Thus, it is controlled for the impact of the pension-scheme design. The mean job tenure differs significantly between group A (entry into Company_Z in years 2012 to 2014) and group B (entry in years: 2004 to 2006): The mean job tenure of group A is 2.2 years and that of group B is 10.1

Entry group	N	Mean	Std. Deviation	Std. Error Mean
A (entry: 2012-2014)	73	2.4384	1.09273	.12789
B (entry: 2004-2006)	90	2.4889	1.14406	.12059

Table 24: Mean values for “occupational pension schemes as a reason for staying”, differentiated by entry groups A and B

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
nv4_7 pension reason to stay	Equal variances assumed	0.048	.827	-0.286	161	.775	-.05053	.17663	-.39935	.29828
	Equal variances not assumed			-0.287	156.722	.774	-.05053	.17578	-.39774	.29668

Table 25: Independent t-test to test the significance of differences between the means depicted in Table 24

The mean difference between the answers of respondents from group A and respondents from group B is very low (-0.05). This difference is not significant $t(161) = -0.268$, $p > 0.05$. Thus, the alternative hypothesis – that the means for the assessed importance of the occupational pension scheme for decisions to stay differ between group A with short job tenure and group B with long job tenure – is rejected. This supports the contention that it is really the design of the pension scheme that leads to significant differences in the means between those with OPS-2004 and those with OPS-1979 with respect to the relevance of the pension scheme for staying at the company.

It seems plausible that differences in pension entitlements resulting from the different versions of the pension scheme find direct expression in different retention effects of the pension scheme. However, other findings indicate that the relevance of the pension scheme cannot be reduced to a financial perspective. This is supported, for example by the answers to Question 4 of the online survey: the mean for the employees' agreement with the statement "Company_Z offers its pension scheme primarily for reasons of care for its employees" is very high (overall mean: 3.51, mean for group AB: 3.53, mean for group C: 3.48). The view that Company_Z offers its pension scheme (also) for care reasons is also given expression in the interviews. For example, Ms4_79 states:

"... I would say 'for care reasons'. We call ourselves the 'big family'. Basically, somewhere at the top, there is the daddy [laughing], let us say Company_Z. And that is, I believe, also a duty of care."

Mr2_04 confirms the view that Company_Z offers its pension scheme mainly for reasons of care, because it fits in with his overall impression of Company_Z's activities. But he also reflects that Company_Z would pursue its own objectives as well:

*"I think that it is very typical of Company_Z. First, for the employee's benefit. Yes, and second, of course, with the intention to find and retain employees. [...]
From this perspective, it is not as much for retention effects. I believe it is really for duty of care and for responsibility towards its*

employees. It is noticeable in everyday life. Well, much is being done for the employees.”

Only one interviewee (Ms1_04) states that Company_Z offers its pension scheme predominantly because it takes profit from it. Three interviewees, however, see “duty of care” as the only reason for Company_Z’s pension-scheme offer. A fourth interviewee (Ms10_59) even asked what the self-interest of Company_Z, with respect to its pension-scheme offer, could be. When the interviewer drew attention to “retention management”, this interviewee confirmed that this could also be a reasonable reason. Only one interviewee remarked that, in Germany, every company is bound by law to offer its employees at least the possibility of salary conversion.

To sum up, 11 out of 16 interviewees are of the opinion that the pension-scheme offer is advantageous to both Company_Z and its employees. Moreover, all interviewees value the occupational pension scheme as a sign of Company_Z’s care for its employees.

The theme “Company_Z as a family” emerged not only in the interview with Ms4_79, but in three interviewees all in all. Obviously, this metaphor plays an important role in the employees’ attachment to Company_Z. Mr12_59 illustrates it as follows:

“The family ... the term ‘family’ is really used, here. Not daily, not at any given opportunity, but again and again. I think that this characterises the whole picture here.”

Another interviewee states that the term “family” is also used by Company_Z’s representatives, which was confirmed by the head of the personnel department. He told the author of this thesis that he used this term as well, even in official meetings.

Obviously, the use of the “family” metaphor also signals a very good corporate culture. Ms4_79 puts it this way:

“In a family, nobody should fall by the wayside. And that is what Company_Z tries to do ... to take all members along. And information is shared all the time whether they are good or bad. ALL pieces of information are shared, just like that what a family does.”

It has to be added that the interviews also revealed reasons for staying other than occupational pension schemes: For example, at least four interviewees explicitly stated that they considered the good working atmosphere as a reason for staying (see Appendix 18). This aspect seems to be more important for staying than does Company_Z's pension scheme, especially when other explicit answers are subsumed under "good working atmosphere" (e.g. "satisfaction with entire situation regarding the workplace" or the perception of Company_Z as family) and when the vividness of the statements is accounted for. In the interviews, the pension scheme was also highlighted four times as a reason for staying. This might, however, have been influenced by the overall focus on old-age provision in the interview.

Mr2_04, for example, says, in answer to the question of whether the pension scheme keeps him at the company:

"No, no. For me, the working atmosphere is more important. And that the environment is okay. And, yes, it is primarily this atmosphere of well-being, which I always needed."

5.4. Role of occupational pension schemes in attracting and retaining employees, differentiated by age and sex (RQ_4)

In Chapters 5.1 and 5.3, the importance of Company_Z's pension scheme for attracting and retaining employees was outlined without addressing potential differences with respect to gender and age. This was done because the analysis of potential differences that may be related to gender or age is subsumed under a separate fourth sub-research question: **To what extent do the findings for RQ_1 and RQ_3 differ between men and women or between young and old employees?**

The analysis contains several steps. First, it is analysed whether or not the importance of the occupational pension scheme in taking a job differs a) between men and women and b) between employees who are up to 40 years old and those aged above 50. Second, it is analysed in an analogous manner whether or not the importance of the pension scheme for employees' decisions to stay differs a) between men and women and b) between younger employees (up to 40 years old) and older ones (> 50 years old).

This results in four different hypotheses:

Hypothesis 4a, (H₀)-4a: There is no difference between *men and women* regarding their assessment of the importance of the occupational pension scheme in decisions on whether or not to *accept Company_Z's job offer*.

Hypothesis 4b, (H₀)-4b: There is no difference between *younger and older employees* regarding their assessment of the importance of the occupational pension scheme in decisions on whether or not to *accept Company_Z's job offer*.

Hypothesis 5a (H₀)-5a: There is no difference between *men and women* regarding their assessment of the importance of the occupational pension scheme in decisions on whether or not to *stay with Company_Z*.

Hypothesis 5b (H₀)-5b: There is no difference between *younger and older employees* regarding their assessment of the importance of the occupational pension scheme in decisions on whether or not to *stay with Company_Z*.

These hypotheses are successively tested for significance for the whole sample. The SPSS results are depicted as well. Hypotheses (H₀)-4a and (H₀)-5a are also tested for pension groups AB and C separately, but without depicting the SPSS results. It was refrained from testing (H₀)-4b and (H₀)-5b for groups AB and C, because the number of older employees (was very small in group AB; n = 8). In the following, all results of the tests of the hypotheses are, at first, briefly presented. Then, all results will be discussed at a stretch.

Hypothesis 4a, (H₀)-4a: There is no difference between *men and women* regarding their assessment of the importance of the occupational pension scheme in decisions on whether or not to *accept Company_Z's job offer*.

Sex	N	Mean	Std. Deviation	Std. Error Mean
Male	190	2.5632	1.16551	.08456
Female	118	2.3220	1.10849	.10204

Table 26: Mean values for “occupational pension scheme as a reason for accepting the job offer”, differentiated by sex

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
nv4_6 pension reason to accept	Equal variances assumed	1.018	.314	1.798	306	.073	.24112	.13409	-.02273	.50498
	Equal variances not assumed			1.819	257.635	.070	.24112	.13252	-.01984	.50209

Table 27: Independent t-test to test the significance of differences between the means depicted in Table 26

In Table 27, it is shown that the means do not differ significantly ($p > 0.05$). Thus, **(H₀)-4a** cannot be rejected for the whole sample. This indicates that the role of the occupational pension scheme in accepting the job offer does not differ between men and women. However, **(H₀)-4a** is rejected for pension group C (but not for group AB). In pension group C, the mean is significantly higher for men than for women ($p < 0.05$, effect size: 0.18).

Hypothesis 4b, (H₀)-4b: There is no difference between *younger and older employees* regarding their assessment of the importance of the occupational pension scheme in decisions on whether or not to *accept Company_Z's job offer*.

Age groups	N	Mean	Std. Deviation	Std. Error Mean
up to 40 years	149	2.3221	1.09216	.08947
> 50 years	35	2.5714	1.28991	.21803

Table 28: Mean values for “occupational pension scheme as a reason for accepting the job offer”, differentiated by age group

It is decided, for the definition, that respondents who are up to 40 years old belong to the group of younger employees and those older than 50 belong to the group of older employees. If the number of cases of employees in their late 50s or early 60s had been higher, the second group would have been delineated differently (employees who were at least in their late 50s) because it is likely that employees close to retirement devote more attention to their pension scheme than do employees in the early stages of their professional careers. Even though the divide for being assessed as “old” has already been made at “> 50 years”, there are only 35 employees who fall into this category

(see Table 28), whereas 149 employees belong to the group of younger employees. Thus, the findings may have to be interpreted with due care.

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
nv4_6 pension reason to accept	Equal variances assumed	3.381	.068	-1.173	182	.242	-.24928	.21258	-.66872	.17016
	Equal variances not assumed			-1.058	46.115	.296	-.24928	.23568	-.72365	.22508

Table 29: Independent t-test to test the significance of differences between the means depicted in Table 28

Table 29 illustrates that the means between younger and older employees regarding their assessment of the importance of the pension scheme in their decisions to accept the job offer do not differ significantly ($p > 0.05$). Due to the small size of the group “> 50 years”, the hypothesis is not tested separately for groups AB and C.

Among the few researchers who analysed differences between men/women and younger/older employees in the relevance of occupational pension schemes for job-choice decisions are Loretto et al. (2000). The findings above (no rejection of (H_0) -4a and (H_0) -4b) correspond with their findings in that they also found few sex-related or age-related variations.

Whereas (H_0) -4a and (H_0) -4b dealt with the role of occupational pension schemes for attracting employees, (H_0) -5a and (H_0) -5b focus on their role for the intention to stay.

Hypothesis 5a, (H_0) -5a: There is no difference between *men and women* regarding their assessment of the importance of the occupational pension scheme in decisions on whether or not to *stay with Company_Z*.

Sex	N	Mean	Std. Deviation	Std. Error Mean
Male	191	2.8901	1.19801	.08668
Female	117	2.8205	1.24302	.11492

Table 30: Mean values for “occupational pension scheme as a reason for staying”, differentiated by sex

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
<	nv4_7 pension reason to stay	0.101	.751	0.487	306	.626	.06954	.14267	-.21120	.35028
	Equal variances not assumed			0.483	238.435	.629	.06954	.14394	-.21403	.35311

Table 31: Independent t-test to test the significance of differences between the means depicted in Table 30

As can be seen in Table 31, the average assessments of the importance of the occupational pension scheme for staying do not differ significantly between men and women ($p > 0.05$). The finding is the same when the hypothesis is tested separately for groups AB and C. These results may be surprising when they are compared with the list of summaries of interviewees' statements depicted in Appendix 18. Looking at Appendix 18, the conclusion could be drawn that more women (four) than men (none) consider the occupational pension scheme as a decisive (or at least as an important) reason for staying. However, this might be relativised by trade-off considerations of men, as described on page 154.

Hypothesis 5b, (H_0)-5b: There is no difference between *younger and older employees* regarding their assessment of the importance of the occupational pension scheme in decisions on whether or not to *stay with Company_Z*.

Age groups	N	Mean	Std. Deviation	Std. Error Mean
up to 40 years	149	2.6644	1.17755	.09647
> 50 years	35	2.9714	1.29446	.21880

Table 32: Mean values for “occupational pension scheme as a reason for staying”, differentiated by age group

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
nv4_7 pension reason to stay	Equal variances assumed	0.147	.702	-1.362	182	.175	-.30700	.22545	-.75184	.13784
	Equal variances not assumed			-1.284	48.086	.205	-.30700	.23913	-.78777	.17377

Table 33: Independent t-test to test the significance of differences between the means depicted in Table 32

Table 33, again, shows that the mean differences are not significant ($p > 0.05$). This indicates that there are no differences between younger and older employees in their assessment of the importance of the pension scheme as a reason to stay at the company.

As an interim finding, it can be summarised that, for the whole sample, all four hypotheses, ((H_0)-4a, (H_0)-4b, (H_0)-5a, (H_0)-5b), cannot be rejected, which indicates that the role of the occupational pension scheme in employees' decisions to accept Company_Z's job offer respectively to stay does not differ according to "age" or "sex". The only significant difference could be found for group C: Here, on average, men stated to a significantly higher extent than women that the pension scheme was an important reason for accepting the job offer.

Against the background of further findings (those within this thesis and those of other researchers), these interim findings need to be explained further. With respect to age, Byrne and Rhode (2006) found that older people, in particular, regarded the pension scheme as a retention factor. They however, conducted qualitative research. Hence, their results cannot be tested for significance and, thus, not cannot be directly compared with the results of the quantitative part of the research for this thesis. However, even the results of the online survey conducted for this thesis might hint that the variable "age" cannot be disregarded. For instance, Figure 14 (see page 98) illustrates that the choice between a pay rise and an equivalent additional contribution by the employer to the pension scheme (asked about in the online survey) seems to be age-dependent: 46 % of employees aged 50 or above opted for the additional

contribution to the pension scheme, whereas the figure was only 22 % in the group of employees aged up to 40. In order to gain a deeper understanding of the reasons for the employees' choices, the interviewees in the qualitative part of the research were confronted with the same decision task and, here, all but one interviewee preferred the additional contribution to the pension scheme. As might have been expected, the only interviewee with a preference for the pay rise belonged to the youngest age group (25 to 30 years). This interviewee, Mr8_04, explains his decision as follows:

"I would definitely choose the pay rise, because I am of the opinion that ... although..., in old age one would of course need some money, but I won't profit from old-age provision in case I die before I will start drawing my pension . Perish the thought! But I am not a collector or a mega-scrimper."

However, contrary to Mr8_04, the second interviewee in the youngest age group, Ms13_04, prefers the contribution to the pension scheme. She argues:

"Yes, of course... that would be alluring [ANNOTATION: THE PAY RISE]....[...] But with a view to the future, old-age provision will indeed be a problem. That is, of course, a topic that I am concerned with. Young persons might block out the topic by saying: 'Yeah, yeah, that will work out in the end.' But I think that this is not the case. That is the problem. When I would be asked to choose, then ... I would answer, after due deliberation, that it is better to enhance the pension entitlements, so that there is an extra income in old age."

The fact that all but one interviewee opted for the additional contribution to the pension scheme challenges the contention that the answers are age-dependent, as prompted by the results of the quantitative part of the research. However, the clear vote in favour of the pension scheme might at least partly be due to the age structure of the interviewees. Mr8_04 and Ms13_04 are the only interviewees younger than 30 (in line with the specifications regarding the purposive sampling procedure). All other interviewees are at least 40 years old.

Thus, they might be a bit more inclined to choose the pension-scheme alternative.

Whereas Mr8_04 and Ms13_04, cited above, are among the youngest interviewees, Ms10_59 is among those interviewees closest to retirement. She points out that she would clearly opt for the additional contribution of the employer to her occupational pension scheme. On the one hand, her decision fits with the expectation that older employees would prefer an enhancement of their pension entitlements. But, on the other hand, her decision could be viewed as significant, because Ms10_59 belongs to the group of employees with the highest possible pension entitlements (OPS-1959). As outlined above, OPS-1959 is very attractive not only in comparison with the other versions of Company_Z's pension scheme but also in absolute terms. In this context, it might have to be taken into account that Ms10_59 admits that she is not able to specify her entitlements "*in Euros*". Nevertheless, she knows that her pension entitlements are "*very good*". It is possible that the reasons for her preference for the contribution to the pension scheme may be similar to those of other employees (although she did not explicitly express it). Several employees stated that, actually, they did not need a higher salary and this has led to their choice of the additional contribution to the pension scheme. Bearing in mind the need to provide for their old age, a few employees thankfully added that their choice of the pension alternative also meant that their employer had relieved them of the responsibility to make their own decisions on how to invest the money for their old-age provision. These employees trusted Company_Z to invest the money in a professional manner and in a better way than they themselves could do it, not least because Company_Z is a big insurance company with a large volume of financial assets and with specialist knowledge in this area.

With respect to the question of whether or not the pension-scheme offer is a tie to the employer, it is remarkable that three male respondents explicitly stated that they see a trade-off situation between the potential loss at their current employer and a potential higher salary offered by a new employer. In contrast to this, no woman mentioned such a trade-off decision.

On the other hand, more women (three out of eight) than men (one out of eight) highlighted the impact of their family situation on old-age provision. Ms1_04 and Ms4_79, for example, mentioned, without being prompted, that as a retiree, they could draw on savings of their husbands and that they decided together with their husbands how to provide for old-age. Mr14_79, however, stated that the relevance of old-age provision increased with his increasing family. In those interviews in which the interviewees did not mention the role of their spouse or other family members with respect to their view on old-age provision, the interviewees were asked if they believed that there were differences in women's and men's decision-making processes with respect to old-age provision. Interestingly, all but one interviewee stated that they saw no reason for assuming that differences exist. Only Ms11_04 pointed out that, in her view, women took less care of their prospective financial situation at retirement age than men did. She identified that, in particular, those women who did not acquire pension entitlements in their own right and who lost their partners might not be well-off as a retiree. Other sources show that these concerns of Ms11_04 are justifiable. In Germany, as already mentioned in Chapter 1.2, women draw, on average, much lower pensions than men do. For Company_Z, data regarding differences between the levels of women's and men's pension entitlements were not available. However, the analysis of the salary structure of the respondents in the quantitative part of the empirical study for this research reveals a significant difference between male and female respondents to the disadvantage of women (cross tabulation of the variables "salary category" and "sex", chi-square test, $p < 0.001$). Obviously, one reason for this is that fewer women than men are in Company_Z's top pay grades: whereas 55 % of all male respondents stated to earn 60,000 or more Euros annually, the corresponding percentage for female respondents is only 16 %. These differences in salary might indicate that the pension entitlements of Company_Z's female employees will be much lower than those of its male employees (due to the salary-dependent pension formula). Even in cases where these differences in salary between men and women are partly due to an, on average, lower volume of employment of women, the consequences will be the same: low salary levels lead to low pension

entitlements. Keeping this in mind, the finding that the average assessments of the importance of the occupational pension scheme for staying do not differ significantly between men and women – (H0)-5a could not be rejected – might be surprising. One might have expected that differences in the height of prospective pension entitlements would have found expression in differences regarding the retention effect of the occupational pension scheme. The answer to the question of why this expectation was not met may be multifaceted. One plausible explanation could be that it is not the objective level of the pension entitlement that is decisive for the retention effect of a pension scheme but its perceived subjective value. (The latter might be the same for women as for men, although, in absolute terms, the pension entitlements of women are lower). This might be all the more so when the individual levels of information about pension details are low (which is the case, see Chapter 4.2.2 and the section below).

In the academic literature, various articles can be found in which gender-related differences in pension savings or pension entitlements are discussed (e.g., Ginn and Arber 1993, Ginn 2003, Frericks et al. 2008, Meyer and Bridgen 2008, Bardasi and Jenkins 2010). In 2017, the postulation that “Women and men shall have equal opportunities to acquire pension rights” (European Parliament et al. 2017: 20) even found its way into the “European Pillar of Social Rights” which was proclaimed at the Social Summit in Gothenburg, Sweden, on 17 November 2017. This document, jointly published by the European Parliament, the Council of the European Union and the European Commission, comprises 20 principles and rights which are meant to support fair and balanced labour markets and welfare systems in Europe. Nevertheless, there are only a few studies that analyse the relevance of occupational pension schemes from women’s point of view. Among these studies are those of Gough (2004) and Foster (2012). The latter, however, focused her research on young women (aged 18-30) only, so that no comparisons between women and men were possible. She found out that the “Participants’ knowledge of pensions was generally limited despite some participants’ claim to have a reasonable knowledge” (Foster 2012: 774). Her resulting conclusions are in line with the findings of Loretto et al. (2000) and

the author of this thesis in that the occupational pension schemes may have “some, albeit limited impact on their choice of employer” (Foster 2012: 779). According to her, this (limited) impact most likely exists among women in managerial and professional occupations. This coincides to some extent with the results of the quantitative part of the empirical study conducted for this thesis: here, at least for pension group C, women agreed to significantly lower extent than men that the pension scheme offer had been an important reason to accept the job offer. Gough (2004), however, did not focus on the relevance of occupational pension schemes for women’s choice of their employer or for their intentions to stay. Her aim was to find out the reasons of women (in the United Kingdom) for not joining a pension scheme. For women, the most often stated reason for not joining was their expectation that their partner would contribute to their old-age provision (26.1 %, men: 1.4 %). The second most important reason was that they did not want to reduce their income (21.1 %, men: 4.3 %). In contrast to this, the two most important reasons for men were that they “get an own personal pension” (28.2 %, women: 18.9 %) and they “intend to change their jobs” (26.1 %, women: 14 %; Gough 2004). These research results support the impression, from the qualitative research for this thesis, that women might more often rely on their partners than men do with respect to old-age provision. Moreover, it is (indirectly) supported that the pension scheme is considered in turnover decisions.

With respect to the influence of age on both the employees’ intent to stay and job-choice decisions, Gough and Hick (2009), pointed out that the pension scheme was getting more important for the employment relationship with the employees’ increasing age. This finding results from a study that also allowed for the role of occupational pension schemes within the employees’ psychological contract. Gough and Hick (2009) even contended that “The degree to which an occupational pension scheme can be said to form a significant component of the psychological contract of younger employees can therefore be seriously questioned” (Gough and Hick 2009: 163). This quotation links into Chapter 5.5 which will focus on the relationship between occupational pension schemes and the psychological contract.

5.5. Relating occupational pension schemes to the psychological contract (RQ_5)

In Chapter 5.5, the last of the five sub research questions is answered: **How do the employees assess the fulfilment of that part of their psychological contract that is related to the occupational pension scheme and how might perceived contract breaches affect the employees' organisational commitment?**

In Chapter 3.2.5, it has already been mentioned that both the quantitative part and the qualitative part of the research contained separate questions with respect to the employees' psychological contract. In both parts, these questions focused on the employees' perceptions of the extent to which Company_Z pledged itself to provide employees with a market-compliant occupational pension scheme and also on their perceptions of the extent to which that pledge had been fulfilled. Fulfilment of the pledge is measured by subtracting the score for the pledge from the score for the real provision of a market-compliant pension scheme (both are scores from a five-point Likert scale). Thus, a negative sign indicates that the psychological contract has been broken.

The results of the quantitative part of the research have already been briefly presented in Chapter 4.2.2. In the next section, the presentation of the results of the qualitative part will follow. After that, both parts will be jointly discussed.

Two out of 16 interviewees state that they are not able to assess the pledge of a market-compliant occupational pension scheme or its real provision. Ms4_79, who has been working for Company_Z for nearly 15 years, explains that she is not able to remember whether or not a market-compliant occupational pension scheme was pledged to her at the time of her permanent employment. The same is applicable to Ms10_59 who has been working for Company_Z for more than 40 years.

The other 14 interviewees can be divided into two categories: a) contract fulfilment: nine interviewees (64 %); b) over-fulfilment: five interviewees (36 %). This means that obviously none of the interviewees perceives a psychological contract with regard to the pension scheme.

a) The assessments of Ms3_04 show the highest form of over-fulfilment (“1” for “pledge” and “5” for “in reality”). She argues that nothing had been pledged to her with regard to the pension scheme at the time of her employment because, at first, she only had a job as a temporary help. Now, she is firmly convinced that Company_Z has provided her with a market-compliant occupational pension scheme. Mr12_59 and Mr14_79 also stated that the pension scheme was not thematised in the job interview or in the follow-up conversations, so they were positively surprised about the pension-scheme offer afterwards.

Mr5_79, who selected answer category 4 for assessment of the pledge and category 5 for the actual provision of a market-compliant occupational pension scheme, remembers that, at the time of his employment, the prospect of a good old-age provision was held out (*“also quite good touted”*). He is convinced that his OPS-1979 is really very good and that this is particularly the case when it is compared with the occupational pension schemes of other companies or even with the schemes of younger colleagues at Company_Z. Nevertheless, he has it in mind that OPS-1959 is even better than OPS-1979. But this does not prevent him from assessing his pension scheme with a 5, indicating over-fulfilment. Ms15_79 selected the same answer categories as Mr5_79. Nevertheless, her assessment of over-fulfilment obviously results not only from a positive assessment of her pension scheme, but also from a re-evaluation of its importance. At the time of her employment, the pension scheme was not important to her. In the meantime, this has changed considerably.

b) The group of nine interviewees who state that their pension scheme matches what was pledged (= fulfilment of the psychological contract) is, however, not homogenous. The differences lie in the level of their assessments: four interviewees rated the combination 5/5 (pledge/real provision), four interviewees rated 4/4 and one interviewee chose 3/3. The latter was Mr16_04, who chose 3/3 because he thought that his overall pension entitlements would be too low to guarantee a comfortable life in old age. Another reason for this assessment was that he considered his occupational pension scheme as being merely mediocre when compared

with former versions of Company_Z's schemes. His explanation illustrates (similar to that of Mr5_79, see above) that the assessments requested by the interviewer require a two-step decision: first, the comparison between Company_Z's pledge and its effective provision of a pension scheme leads to the decision on whether or not to tick the same points on the two Likert scales for "pledge" and "real provision". Second, it is required to choose the respective level of the answer categories (here, for example, whether to tick off twice a 3, a 4 or a 5). The latter decision is dependent on a comparison with other versions of Company_Z's scheme and also on a comparison of the expected absolute level of the occupational pension with the level deemed necessary. The latter comparison, in particular, is a highly subjective assessment which might be dependent on other, already existing, forms of old-age provision (such as property ownership) or on varying demands. Ms1_04, for example, mentions that she possesses property which is nearly paid off. This is one of the reasons why she believes that her pension entitlements will meet her expenses in old-age. Mr16_04, however, has already stated:

"But I also know that it will not suffice to live properly, that I myself have to do something additionally".

Although Ms1_04 and Mr16_04 are entitled to the same occupational pension scheme (OPS-2004) and both have nearly the same job tenure (indicating that their job interviews and the pledges given to them were probably similar), their assessment of the occupational pension scheme differs (Ms1_04: 4/4; Mr16_04: 3/3). This example illustrates the need to interpret the research results by allowing for the subjective contexts of the interviewees.

The findings presented above show, in summary, that all interviewees consider that Company_Z has fulfilled or even over-fulfilled its pension pledge. Here, the interviewees who stated that nothing had been pledged to them are subsumed under "over-fulfilment". For the latter interviewees, however, it might be questioned whether or not the pension-scheme offer had been a constituent part of their psychological contract right from the beginning of their employment relationship. On page 34, the psychological contract was defined

as “a series of mutual expectations of which the parties to the relationship may not themselves be even dimly aware but which nonetheless govern their relationship to each other” (Levinson et al. 1962: 21). According to this definition, Company_Z’s occupational pension scheme is not part of the employee’s psychological contract if its existence does not have any influence on the employer-employee relationship. As can be deduced from the interviews with those interviewees who could not remember what was pledged and those who stated that nothing had been pledged, for each and every one, their occupational pension scheme influenced their relationship with Company_Z. This is exemplified by Ms3_04 and Ms4_79. Ms3_04, who stated that nothing was pledged to her, confirmed that nowadays her occupational pension scheme ties her to her employer. Ms4_79, who could not remember what was pledged, mentions that she read Company_Z’s information leaflets about her pension scheme right at the beginning of her employment and did so again several years later. Moreover, she notes that, again and again, she has had discussions with her daughter, who is also working for Company_Z, but who is entitled merely to OPS-2004. This reminds her from time to time that she is privileged.

Thus, it can be recorded that, for all interviewees, the occupational pension scheme can be seen as part of the psychological contract, even for the younger interviewees. This challenges the conclusions of Gough and Hick (2009) reported in Chapter 5.4. Moreover, the interviews have shown that the relevance of the occupational pension scheme within the psychological contract changes over time, which corresponds to the research results that can be found in the academic literature (Robinson et al. 1994, Anderson and Schalk 1998, Guest 2004).

As outlined in Chapter 4.2.2, the mean values of agreement with the two statements “On the occasion of my employment, Company_Z pledged itself to provide me with a market-compliant occupational pension scheme” and “Company_Z has actually provided me with a market-compliant occupational pension scheme” are very similar (4.17 versus 4.26). Moreover, it was outlined that this has been the reason for placing emphasis on the analysis of fulfilment of the psychological contract in the qualitative part as well. In the qualitative

part, none of the interviewees is of the opinion that, with respect to the occupational pension scheme, the psychological contract has been broken, whereas in the quantitative part of the research, 31 respondents (roughly 10 %) assessed the item “real provision” as being lower than the item “pledge”, thus indicating contract breach. Here, the statistical analysis does not reveal significant differences between men or women, between age groups or between pension group AB or C.

It has to be pointed out here that, in the academic literature, no published evidence seems to exist in which a potential breach of the psychological contract with respect to its component “occupational pension scheme” is analysed. For a general discussion of the consequences of breaches of psychological contracts on commitment in the literature, see, for example, Robinson and Rousseau (1994) and Jafri (2011).

For the quantitative part of this thesis, the research design would, theoretically, enable the researcher to analyse the impact of a contract breach – with respect to the occupational pension scheme – on affective, continuance and normative commitment. However, the small number of perceived contract breaches that emerged from the quantitative part of the research (31, thereof 20 respondents in group AB and 11 respondents in group C) were too small for conducting regression analyses, all the more so it would have been necessary to conduct these analyses for the two pension groups AB and C separately (due to the fact that the commitment scales were optimised separately).

In Chapter 5.3, it was summarised that all interviewees valued the occupational pension scheme as a sign of Company_Z’s care for its employees, although most interviewees also noticed that Company_Z might profit as well. The view that Company_Z’s pension scheme is a sign of care prompts the conclusion that the pension scheme is part of the relational psychological contract. This would fit in with the metaphor of a family in which everyone is there for one another. But, again, whether the occupational pension scheme is seen as part of the relational, or the transactional, psychological contract is obviously a very subjective matter. Two interviewees, for instance, clearly stated that they saw the occupational pension scheme as

part of the total compensation package, indicating that for them the scheme was part of the transactional psychological contract. For example, Mr5_79 characterises the trade-off relationship between pension entitlements and salary. He stated that, in the case of a potential change of employer, he would first sum up the value of his occupational pension and his current salary. Then, he would compare this with what his (potential) new employer offered him (pension plus salary). The line of argument presented above – that it is a very subjective matter whether the occupational pension scheme is seen as part of the relational, or the transactional, psychological contract – differs slightly from that of Gough and Arkani (2011), who indirectly stated that it was the design of the pension scheme that was decisive for its characterisation as relational or transactional. They stated that defined benefit schemes could be seen as part of the relational psychological contract, whereas defined contribution schemes could be seen as part of the transactional psychological contract. The author of this thesis questions this clear-cut attribution because even seemingly clearly defined characteristics of a pension scheme can be interpreted and valued differently by different employees in different contexts.

5.6. Reflections on validity and reliability

After having presented the research results of both the qualitative and the quantitative part of the empirical research for this thesis, this Chapter 5.6 demonstrates what was done to reach validity and reliability. Both in quantitative and qualitative research, researchers try to ensure validity and reliability in order to ensure the quality of their research. Nevertheless, the approaches differ between quantitative research and qualitative research.

Validity: According to Bryman (2016: 41), validity is “in many ways the most important quality criterion” of research. Measurement validity (or construct validity) is given when the measure of a concept really measures this concept (Saunders et al. 2012). In this thesis, the most sensitive part with respect to measurement validity is probably the use of a scale for measuring organisational commitment in the online questionnaire. As has been outlined in detail in Chapter 3.2.5, the risk of not measuring organisational commitment was reduced by referring basically to the three-component model of

organisational commitment (Meyer and Allen, 1990). Moreover, the dimensionality of the model was checked via a CFA. (See also the discussion of other measures of validity, such as AVE and CR, in Chapter 4.2 .)

In general, construct validity can be tested by using multiple sources. In Chapter 3.2.5, it was shown that several questions were posed for triangulation purposes. In this thesis, triangulation is also used to some extent across the quantitative and the qualitative parts of the research (for examples in the literature, see Flick 2008). Another way to ensure construct validity is to discuss the questionnaires prior to the final use with experts in the field. This was done by discussing the research approach with the supervisor and with experts at Company_Z.

Internal validity is “the extent to which the investigator can conclude that there is a cause and effect relationship among variables” (Creswell and Plano Clark 2011: 211). In Chapter 5.2 and in Part A of Appendix 16, it is discussed that the assumed directionality between the independent variables and the dependent variables in the regression analyses was widely accepted in the literature. Nevertheless, due to the cross-sectional design it would go too far to talk about cause and effect relationships. This limitation only applies to the regression analyses (see also Chapter 6.4.2).

External validity is given when the research results can be generalised to a larger population. Yin differentiates as follows: “Survey research relies on *statistical* generalization, whereas case studies [...] rely on *analytic* generalization. [...] In analytic generalization, the investigator is striving to generalize a particular set of results to some broader theory” (Yin 2009: 43). With respect to statistical generalisations, the author of this thesis has demonstrated in Chapter 4.2.1 that the sample of the online survey is representative of the population (= all employees of Company_Z). It was not intended to make statistical generalisations beyond Company_Z. The topic of analytic generalisations will be taken up in Chapter 6.

Guba and Lincoln (1994) argued that quality criteria might differ according to the worldview that the researcher adopts and, thus, whether a quantitative or qualitative research approach is chosen. They equate, for example, internal

validity (quantitative measure) with credibility (qualitative measure) and external validity (quantitative measure) with transferability (qualitative measure). The latter will also be taken up in Chapter 6.

A typical procedure for ensuring validity in qualitative research is the so-called member-checking or participant-checking. This means that the researcher presents drafts of transcriptions of the interviews or preliminary findings to the respondents in order to check if they agree with it (Stake 1995, Tong et al. 2007). Due to the given tight time-scheduling specified by Company_Z, the respondents were not provided with full transcriptions. Nevertheless, it was agreed upon that the final findings could be discussed with representatives of Company_Z (without providing them with full anonymised interview transcripts in order to preclude the interviewees being identified). This was meant as a quality test of the conclusions drawn from the data.

Reliability is given when the measures are consistent, that is, when a repetition of the measure leads to the same or very similar results (Bryman, 2016). In Chapter 4.2.2 (quantitative part), the values of various reliability measures were discussed. In general, in quantitative research, reliability can be enhanced if questionnaires predominantly consist of closed questions or if checklists or reflective journals are used. These measures were all taken.

To ensure reliability in qualitative research (“dependability” as Guba and Lincoln, 1994, would call it), Silverman recommends the following “thorough pre-testing of interview schedules, thorough training of interviewers, as much use as possible of fixed-choice answers, inter-rater reliability checks on the coding of answers to open-ended questions” (Silverman 2014: 87). For this thesis, Silverman’s recommendations have been followed except for the recommended use of fixed-choice answers, because this would not have fitted the aim of a better understanding of subjective facets. Inter-rater reliability checks were made for the first interview.

Beyond the discussion of measures of validity and reliability, it was considered important to allow for the concerns and misunderstandings about case-study research that were summarised in Table 4 (see page 59). These concerns and misunderstandings will be taken up and discussed in a summarising form in

Chapter 6 where the strengths and weaknesses of this study will be finally reflected.

5.7. Summary and contribution to theory

After having discussed the findings pertaining to the five sub-research questions defined in Chapter 3.1, and after having outlined what was done to fulfil quality criteria such as validity and reliability, in this closing chapter of Chapter 5 the most important findings are briefly summarised. Moreover, the contribution to theory will be emphasised. The contribution to practice will be delineated in Chapter 6.

Summary: A mixed-methods case-study approach was used to answer the five sub-research questions (RQ_1 to RQ_5) and, thus, the overarching research question (RQ): **What is the relevance of occupational pension schemes for the employment relationship in Germany?** The research approach contained an online survey (quantitative part) and 16 semi-structured interviews (qualitative part). The research was conducted in a single company, Company_Z.

RQ_1: How important is the occupational pension scheme for employees with regard to their decision to accept a job offer?

In the online questionnaire, the respondents were asked to state, on a five-point Likert scale, the importance of various aspects in their decision to work for Company_Z. “Design of the pension scheme” is ranked 12th out of 15 answer options (refer to Table 12). This indicates that the pension scheme is of minor importance in choosing to work for Company_Z.

This finding is supported by the results of the interviews. The pension scheme played only an incidental role in the choice of employer (refer to Appendix 18).

(H₀)-1 was rejected. Thus, the importance of the occupational pension scheme in decisions on whether or not to accept the job offer from Company_Z differs significantly between employees with OPS-1979 and OPS-2004. It is higher for those with OPS-1979.

RQ_2: To what extent does the employees' satisfaction with the occupational pension scheme translate into continuance, affective or normative commitment?

To answer this research question, three hierarchical linear regression analyses, with the three dimensions of organisational commitment as dependent variables, were conducted for each of the two pension groups, AB and C. In none of these six regression analyses the focal independent variable "satisfaction with the occupational pension scheme" was a significant predictor of the respective dependent variable.

It was argued that the employees of group C (due to their higher pension entitlements) might be more inclined than the employees in group AB to subsume fringe benefits, such as their pension scheme, under "compensation package". This could also explain why "satisfaction with the total amount of compensation components" has a significant impact on affective commitment (in addition to its impact on continuance commitment) for group C but not for group AB. This explanation assumes that, here, non-financial aspects, such as the notion of a caring employer, are of relevance as well.

In the hierarchical regression analyses, the pension-related independent variable increased the explained variance only to a relatively low extent (maximum increase of R^2 : 1.6 %, continuance commitment as dependent variable, group AB).

RQ_3: To what extent is the role of occupational pension schemes relevant to the employees' decisions to stay with their employer?

Four interviewees state that they consider their occupational pension a reason for staying with their employer. However, other aspects, such as a good working atmosphere or workplace security, seem to be more important (refer to Appendix 18).

A total of 11 out of 16 interviewees are of the opinion that the pension-scheme offer is advantageous to both Company_Z and its employees. Moreover, all interviewees value the occupational pension scheme as a sign of Company_Z's care of its employees.

(H₀)-2 is rejected. Hence, the importance of the occupational pension scheme in decisions on whether or not to stay with the company differs significantly between employees with OPS-1979 and those with OPS-2004. It is higher for those with OPS-1979.

(H₀)-3 is not rejected. Thus, the importance of the occupational pension scheme in decisions on whether or not to stay with the company does not differ significantly between employees with short job tenure and those with long job tenure.

RQ_4: To what extent do the findings for RQ_1 and RQ_3 differ between men and women or between young and old employees?

(H₀)-4a is not rejected. Thus, there seems to be no significant difference between *men and women* regarding their assessment of the importance of the occupational pension scheme in decisions on whether or not to *accept Company_Z's job offer*. The only significant difference could be found when the hypothesis was tested separately for group AB and group C: For group C, on average, men stated to a significantly higher extent than women that the pension scheme was an important reason for accepting the job offer.

(H₀)-4b is not rejected: Thus, there seems to be no difference between *younger and older employees* regarding their assessment of the importance of the occupational pension scheme in decisions on whether or not to *accept Company_Z's job offer*.

(H₀)-5a is not rejected: Thus, there seems to be no difference between men and women regarding their assessment of the importance of the occupational pension scheme in decisions on whether or not to stay with Company_Z. The interviews, however, indicate that the importance might be higher for women than for men.

(H₀)-5b is not rejected: Thus, there seems to be no difference between younger and older employees regarding their assessment of the importance of the occupational pension scheme in decisions on whether or not to stay with Company_Z.

The results of the online survey indicate that the choice between a pay rise and an equivalent additional contribution by the employer to the pension

scheme is age-dependent: the older employees seem to prefer the pension-scheme offer. In the qualitative research, all but one interviewee opted for the additional contribution to the pension scheme in preference to challenges. Here, the clear vote in favour of the pension scheme might be due, at least partly, to the age structure of the interviewees. All but two interviewees were older than 40.

In the interviews, three male respondents explicitly stated that they saw a trade-off situation between the potential loss at their current employer and a potential higher salary offered by a new employer. In contrast to this, no woman mentioned such a trade-off decision. On the other hand, more women (three out of eight) saw an impact of their family situation on old-age provision than did men (one out of eight).

RQ_5: How do the employees assess the fulfilment of that part of their psychological contract that is related to the occupational pension scheme and how might perceived contract breaches affect the employees' organisational commitment?

It is argued that, for all interviewees, the occupational pension scheme is part of their psychological contract and the relevance of the occupational pension scheme within the psychological contract changes over time. Whether the occupational pension scheme is seen as part of the relational or transactional psychological contract is obviously the result of the meaning which the employee subjectively ascribes to it. In the qualitative part of the research none of the interviewees is of the opinion that, with respect to the occupational pension scheme, the psychological contract had been broken, whereas in the quantitative part of the research roughly 10 % assessed the item "real provision" as being lower than the item "pledge", hence indicating contract breach.

Due to the fact that, in the quantitative part of the research, the number of perceived contract breaches was very low, it was not possible to measure the impact of such breaches on organisational commitment.

After having briefly summarised the main findings of the research, the contribution to theory is summarised in the next section.

In Chapter 3.1, five research gaps were identified. By answering the consequent research questions, these research gaps were successfully closed in Chapters 4 and 5.

Contribution to theory 1: It has been argued that, due to great differences in the regulatory framework relevant for old-age provision, the results of research conducted in countries other than Germany cannot simply be transferred to Germany. Moreover, it was pointed out that, for Germany, it was only possible to identify two studies dealing with the relevance of occupational pension schemes for the employment relationship. One of these two studies had the drawback of being based merely on secondary data (Rabe, 2007). Since the second study was part of an international study covering 12 countries (Jasper et al., 2014), it had the disadvantages that it could only allow for German specifics in a very constrained manner and that it was not possible to match the answers of the respondents with the characteristics of their pension schemes. Thus, the empirical research conducted for this thesis contributes to theory by focusing exclusively on Germany, using primary data that can be linked to the characteristics of the respective occupational pension scheme.

Contribution to theory 2: As outlined by Steel et al. (2002), Loan-Clarke (2010) and George (2015), employees' reasons for intentions to stay are not the converse of what prompts them to leave. In addition, Hales and Gough (2003: 326) highlighted that "The level or intensity of commitment to an organisation engendered by membership of a pension scheme has never been spelt out in the literature". However, they were obviously not aware of the study by Luchak and Gellatly (2001), who tried to do this in their paper "What kind of commitment does a final-earnings pension plan elicit?" Nevertheless, the study by Luchak and Gellatly (2001) has several constraints: It is limited to final-earnings plans, it was conducted in Canada and it focuses only on the role of pension accruals (defined as the "present value of the difference in maximum pension payments if one were to terminate immediately rather than one year later", Luchak and Gellatly 2001: 401). Thus, it is only on the financial ties that the pension scheme might strengthen. Moreover, the authors did not use a

three-dimensional measure of commitment. By using only continuance and affective commitment as dependent variables, they left out the dimension of normative commitment. Against this background, the study conducted for this thesis contributes to theory as it analyses the role of occupational pension schemes in employees' intentions to stay (as opposed to turnover intentions) in a very comprehensive manner, not only by focusing on the financial aspects of the pension scheme, but also by allowing for relational aspects and the normative-commitment dimension.

Contribution to theory 3: The literature review has shown that existing research studies did not provide a homogenous picture of the role of occupational pension schemes in employees' decisions to accept a job offer or to stay with their employer. It can be assumed that this might be traced back not only to differently composed samples but also to bias within a single sample. The latter could be the case, for example, when the research approach does not appropriately consider the relevance of contextual factors in the respondents' answers. Thus, it is seen as a strength and not as a weakness that, for the empirical study conducted for this thesis, a single case-study approach was used. This is all the more so when the research is also aimed at comparing sub-groups within a given sample with the lowest possible contextual biases (for example, women versus men or younger versus older employees). The research approach chosen for this thesis contributes to theory by providing a blueprint for a context-sensitive, in-depth analysis of a highly subjective and interpretive matter. As far as is known, it is the only case-study approach that aims to explore the complex area of the role of occupational pension schemes in the employment relationship.

Contribution to theory 4: It has been demonstrated that there seems to be a more or less blank area on the research map with respect to the question of whether or not the role of occupational pension schemes in the employment relationship differs between women and men or between younger and older employees. This thesis contributes to theory by systematically analysing possible differences between these sub-groups, especially with respect to decisions to accept a job offer and to decisions on whether or not to stay with an employer.

Contribution to theory 5: As mentioned several times in this thesis, the subject area of occupational pension schemes is very complex. This might be the reason why most research studies have a very narrow research focus. For instance, they focus:

- either on the recruitment function of an occupational pension scheme or on its retention function;
- either on the employers' view or the employees' view; or
- either on testing hypotheses or on understanding individuals' subjective assessments regarding the role of occupational pension schemes in their employment relationship.

As opposed to those studies, a unique characteristic of this thesis is, obviously, its holistic view of all the above mentioned perspectives, including the impact of (different versions of) occupational pension schemes on the three dimensions of organisational commitment and their role in the employees' psychological contract.

Nevertheless, the empirical research conducted for this thesis has its weaknesses as well. These weaknesses will be reflected in Chapter 6. These reflections will also result in recommendations for future research. Before these recommendations are given, Chapter 6 will first deal with the relevance of the theory-related findings for practice.

6. Practical relevance and conclusion

Chapter 5 outlined how the research conducted for this thesis contributes to theory. The following Chapter 6 focuses on its practical relevance and contribution. This is all the more important as it is considered a key characteristic of a thesis for a professional doctorate such as the DBA that the findings are of practical relevance (Sarros et al. 2005, MacLennan et al. 2018). Nevertheless, it is also expected from a DBA thesis that the research is conducted with the same academic rigour as the research for a PhD thesis. Thus, a DBA thesis has to overcome the “double hurdle of scholarly quality and relevance” (Pettigrew 2001: S61).

This chapter is comprised of various sub-chapters. In Chapter 6.1, the implications for practice are outlined. In Chapter 6.2, the contribution to practice is summarised. Chapter 6.3 contains recommendations on how to implement the findings successfully. The thesis then closes with Chapter 6.4 in which the limitations of this thesis and implications for further research are discussed.

6.1. Implications for practice

For the discussion of the implications for practice, Figure 7 is again referred to (see Figure 19), but for a better traceability it is expanded by numbers (1) to (4):

Figure 19 is used to schematise linkages of the occupational pension scheme to the employment relationship. The steps “contact initiation”, “making contact”, “contact agglomeration” and “maintaining contact” belong to the employer’s recruiting process. These steps are depicted here because, even in this pre-employment stage, aspects might evolve that could influence future employees’ psychological contracts (de Vos et al., 2003).

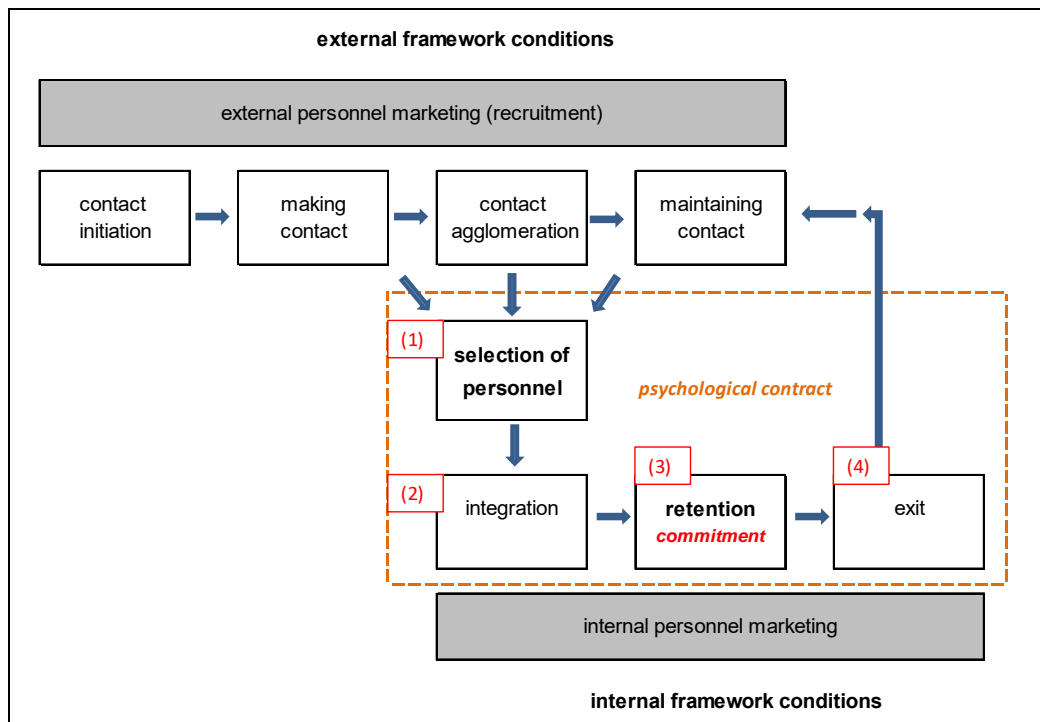


Figure 19: Linking the occupational pension scheme to the employment relationship (own illustration)

(1) Selection of personnel: Although the research has shown that the offer of Company_Z's pension scheme plays only a more or less incidental role in decisions on whether or not to accept a job offer, for some applicants its existence might be the decisive aspect: First, some applicants may perceive the substantial employer contributions to the occupational pension scheme as being part of their compensation package. Thus, the pension scheme might compensate for a low entry wage (e.g., Mr5_79) and, hereby, contribute to the successful recruitment of much sought-after skilled personnel (for example, in the IT sector, as mentioned by Mr9_79). Second, for other applicants, high employer contributions can be relevant because these signal that an employer obviously cares for its employees and is not an employer with a hire-and-fire mentality (e.g., Ms10_59 who cannot even imagine what the self-interest of Company_Z could be).

These findings, and the finding that the employees' knowledge about the occupational pension scheme is, on average, low (see Chapter 4), prompt the recommendation that Company_Z should provide applicants with more detailed information in the job interview and the follow-up conversations. In the interviews with the employees, it became clear that Company_Z had already

changed its information policy in recent years. Obviously, it is worthwhile for Company_Z to improve employees' information level and their awareness of the occupational pension scheme. This can be supported by the empirical data: employees who stated that their occupational pension had been an important factor in their decision on whether or not to accept Company_Z's job offer (values 4 or 5) *and* who were very satisfied with their pension (values 4 or 5; see top-right quadrant in Figure 12 on page 84) are much more likely to see their pension scheme as an important reason to stay (46 % versus 34 % for all employees, values 4 or 5). Hence, clear information and a clear promotion policy right at the beginning of the employment relationship, in combination with a satisfying pension offer, can also strengthen the employee-retention effect of the pension scheme.

A clearer information policy, in the sense of “expectation management”, right from the beginning of the employment relationship is considered very important within the psychological-contract literature as well (Kotter 1973, Rousseau 1990, de Vos et al. 2003). The following paragraph will show that this is also valid with respect to the provision of occupational pension schemes. (Please note that, here, “*expectation* management” is used in everyday language. Several authors, such as Roehling 2008, have discussed the relevance of differences in conceptualisations of the psychological contract with respect to the determinacy of the mutual exchange, for example, “expectations” versus “obligations”.)

At least three employees (Ms10_59, Mr12_59, Mr14_79) stated clearly that they had not been familiarised with the pension-scheme offer in the job interview or during their first days of employment. Thus, for these new employees, the occupational pension scheme is, probably, either not (yet) part of their psychological contract or, at most, a vague part of it. This does not necessarily have negative consequences for Company_Z. If, for example, a newly hired employee has only a vague idea of what is pledged to her/him, any offer of an occupational pension scheme might exceed what this employee considers Company_Z owes to her/him and, thus, lead to positive information (which is the case, for instance for Ms10_59, page 114). This, in turn, might engender or strengthen other positive effects such as an increase in

satisfaction or organisational commitment. Nevertheless, it is also possible that the opposite takes place: Without having been given detailed information about the occupational pension scheme right from the beginning, the employees might overrate Company_Z's pledge with respect to the pension scheme. This is likely to lead to a perceived breach of the psychological contract, which might engender negative outcomes such as a decrease in intentions to stay or in organisational commitment (e.g., Robinson and Rousseau 1994, Sturges et al. 2005, Jafri 2011). Thus, it is recommended that Company_Z does not leave this to chance, whether or not newly hired employees develop unrealistic perceptions of what is being pledged. (The relevance of applicants' expectations for their later behaviour is highlighted, e.g., by McCarthy et al. 2017.) The earliest point of such an active expectation management might be a hint in job advertisements that further details can be found on Company_Z's homepage, which is still not the case. As shown in Chapter 5.5 (page 162), only 10 % of respondents to the quantitative part of the study conducted for this thesis assessed the "pledge" with respect to the pension scheme as being higher than that which was really provided. This under-fulfilment indicates contract breach. From Company_Z's point of view, it might be an unfortunate coincidence that indications of contract breach were only ascertainable in the quantitative part of the study and not in the qualitative part because this implies that the reasons will remain opaque: The interviewees could have explained the reasons for a perceived contract breach, as opposed to the respondents in the quantitative part, who were only asked closed questions concerning this matter.

(2) Integration: The occupational pension scheme can also help to integrate employees after their employment. The following remarks by two interviewees support this view. Mr2_04, for instance, points out:

"My colleague, Mr Meyer [ANNOTATION: NAME HAS BEEN CHANGED] works for the sales promotion department. He will give personal advice to colleagues or new hires with respect to old-age provision. For example, he explores options for the new hires, what they can do with the old-age provision offered by their former employer."

Another employee, Mr9_79, mentions that Company_Z periodically offers so-called “provision days” which are open to all employees. Such offers might support employees’ perceptions that Company_Z cares for them, which in turn might contribute to the formation of affective commitment. Such ways of informing employees about Company_Z’s occupational pension scheme (and other forms of old-age provision) can also be seen as part of Company_Z’s active “expectation management”, as discussed above.

(3) Retention: The relevance of the occupational pension scheme to employees’ decisions on whether or not to stay with Company_Z has been discussed in detail, especially in Chapter 5.3. It has been shown that the retention effect is dependent on the design of the pension scheme. An indirect retention effect may occur when employees recognise that Company_Z has fulfilled (or even over-fulfilled) its pension pledge and thereby part of the psychological contract. In the quantitative part of the research, it was also shown that there seem to be no significant differences between older and younger employees and only minor differences between women and men with respect to the relevance of the occupational pension scheme to their decision on whether or not to stay at Company_Z.

In the following section, it is discussed what these findings mean for Company_Z, beginning with the latter finding of there being, at most, only minor differences between women and men or between older and younger employees. Based on this assumption of no clear discrimination with respect to sex and age, one might conclude that it would not be worthwhile for Company_Z to think about addressing special groups of employees in order to promote the advantages of employees’ voluntary contributions to the occupational pension scheme, or to think about additional employer contributions (as part of a reward system). However, this conclusion seems to be misleading for at least two reasons.

First, if it is hardly possible to deduce from personal characteristics, such as sex or age, for whom the occupational pension scheme is likely to be of greater importance and for whom it is probably not, Company_Z could simply ask its employees. Such a question could be posed in the form of a decision

task, as done in the quantitative and qualitative parts of the empirical study. In this study, the employees were asked to assume that Company_Z would make two different offers to them: a) an additional pay rise or b) an additional employer contribution to the pension scheme equal in value to a). Thus, the employee could decide what fits in best with her/his current situation. This is all the more important as what is best for the employee can change over time. A situation in which the employee can choose between alternatives can be seen as a win-win situation because it is also positive for Company_Z if a given amount of an additional investment in human resources is directed in such a way that it has probably the highest positive impact within the employment relationship. Thus, Company_Z might consider changing its existing reward system ("performance should pay off") from a mere bonus system to a more choice-based system following the idea of the so-called "cafeteria-concept". This concept can be characterised as an approach in which entitled employees can choose individually between various forms of remuneration component (Mitchell, Holtom and Lee 2001, Gunderson and Luchak 2001, Knoblauch 2004). In the empirical study, the employees only had a choice between two remuneration components (an increase in salary versus an additional contribution to the pension scheme) so that, here, the term "cafeteria-concept" would actually be too broad. Nevertheless, the effect of consciously choosing between two alternatives might be similar to that of choosing between several alternatives: the employees would very likely have a greater awareness of what their employer was offering to them, which, in the context of this empirical study, might mean that the retention effect of the pension-scheme offer increased. Such an effect would be positive for Company_Z. The fact that, in the qualitative part of the study, all but one employee actually chose the employer's additional contribution to the pension scheme illustrates that such an effect is not unlikely to occur.

Second, it might be an alternative strategy for Company_Z to promote the pension scheme not to those employees who value it most, but to those employees which the company values most. Wolf (2009), for instance, highlights the relevance of the so-called capability-performance-portfolio of employees (see Figure 20) to effective retention-management strategies. The

basic idea is that a company first has to identify which employees are the “stars” of the company with respect to their performance and their capabilities. The high-performing “stars” are talented employees who are considered to have high capabilities and who are identified as consistent high performers (rectangle 9 in Figure 20).

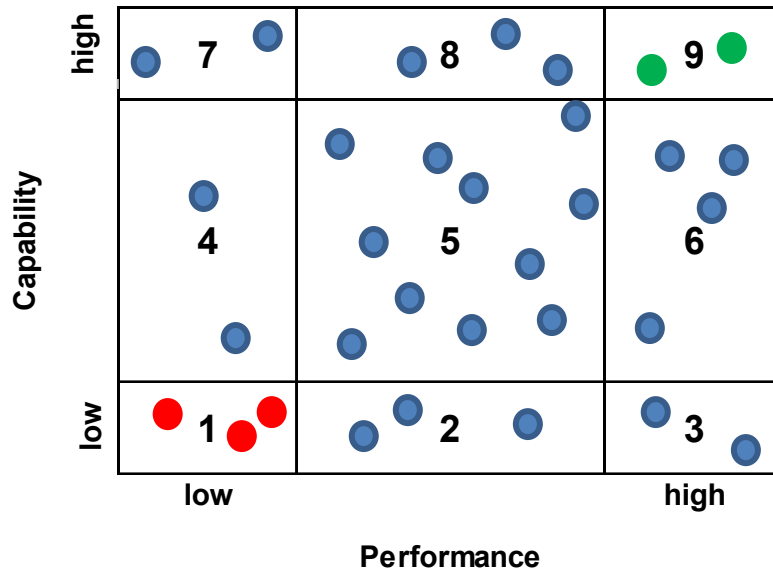


Figure 20: Capability-performance-portfolio of employees
(own illustration based on Wolf 2009: 80)

Thus, it could be considered expedient that Company_Z directs its retention-management strategies mainly towards these high-performing “stars” because they are the most valuable for the company. The second target group would be those employees with a high assessment on one of these two dimensions and at least a mediocre assessment on the other dimension (rectangles 6 and 8). A similar approach to the capability-performance-portfolio would be to identify those employees who are in key positions (e.g. with respect to specialist know-how) and to focus retention-management measures on them (Wolf 2013). Such targeted retention-management measures could, for example, take the form of additional employer contributions to the pension schemes of these employees or, alternatively, an offer to these employees to choose between an increase in salary and an additional employer contribution. (It would go too far, here, to discuss the relationship between collective incentives and individual incentives. For details, see, for example, Pendleton and Robinson (2017)).

The strategy described in the previous paragraph shows that retention management is not an end in itself. It would be detrimental, for example, to bind low performers to the company. Retention-management measures would also be detrimental if they impede companies' quick reactions to dynamic environments. Changing demands often imply that changes in the workforce are needed. This is especially the case if the knowledge and the skills that will be necessary in the future do not yet exist in the current workforce. It would go beyond the scope of this thesis to discuss ways in which companies can cope with highly dynamic environments, for instance via agile management methods (e.g., Rigby et al. 2016, Cappelli and Tavis 2018). However, it should be mentioned here that agile management methods are not necessarily at odds with retention-management measures because, in agile organisations, there are also key employees whose remaining in the company would be of great importance to the company.

With respect to management of the psychological contract, Petersitzke (2009) argues, in the same vein, that it would not be expedient for a company to try actively to manage the psychological contract of every employee. She gives examples of constellations in which it might be especially worthwhile for a company to invest in high probabilities of contract fulfilment: "in service positions when customer satisfaction and retention is tied to employee commitment, in environments where innovation is achieved through personal initiative and in training situations where retention is important because the organisation has invested in individual employees" (Petersitzke 2009: 276).

After outlining alternative ways of carrying out selective retention-management strategies, one non-selective strategy is suggested. In Chapter 4, it was shown that Company_Z's employees perceive Company_Z's offer of an occupational pension scheme as a sign of a caring employer and that this could have an impact on the employees' affective commitment to their employer. This is deduced not least because, in the interviews, it was noticeable that the employees' view of Company_Z as a caring employer and as the building block of a(n occupational) "family" aroused emotional bonds with the company and thus, by definition, gave rise to affective commitment. Thus, it is recommended that Company_Z transfers perceptions of the caring nature of

high employer-contributions to the pension scheme with the aim of increasing this positive effect. This caring character could also be reinforced by addressing the theme of “family” which emerged from analysis of the interviews in the qualitative part of the research. The employees’ perception that Company_Z and its employees can be seen as a “family” would fit in very well because most people expect family members to care for each other.

Nevertheless, it will probably not be easy to find the right communication strategy: Conway and Briner (2006: 160) state that “spelling out *exactly* what is required in an exchange relationship may also weaken many of the bonds that maintain a give-and-take relationship”.

However, retention-management measures, as described above (e.g. modifications of the reward system, addressing key employees, providing employees with further information, providing employees with nuanced messages) entail costs. The following example (see Table 34) uses notional figures to show how to calculate whether or not investments in retention-management strategies will pay off. This example is inspired by a cost-benefit analysis by Stührenberg (2004). Stührenberg enumerated various sources in which turnover costs per employee were analysed. The range was very large and depended not least on the variety of the cost items that were considered (for example, the salary of the employee who leaves; the reduced engagement of the employee in the months before the turnover finally takes place; loss of expertise; unease among colleagues; loss of customers; expenditure for job advertisements; costs of conducting job interviews; a period of vocational adjustment for the newly hired employee; etc.). In his own example, Stührenberg used the estimation of the US Ministry of Labor, which is one third of the employee’s annual income. This percentage is considered conservative and is also used in the example in Table 34 (third row). Another assumption for the calculation is that the average annual income of Company_Z amounts to 56,000 Euros. This assumption is based on the results of the quantitative part of the research.

Row	Assumptions for Calculating	€
(1)	Number of Company_Z's employees in year X (notional figure)	5,000
(2) = (1) * 2%	Number of employees who changed their mind and did not leave 2%	100
(3)	Estimated turnover costs per employee*	18,667
(4) = (2) * (3)	Prevented total turnover costs	1,866,667
(5) -	Expenditures for retention management measures	750,000
(6) -	Productivity loss due to retaining low performers	40,000
(7) +	Productivity gain due to higher motivation of stayers	40,000
(8) = (4) - (5) - (6) + (7)	Net yield attained by retention management activities	1,116,667

* = one third of the assumed average annual income of 56,000 Euros

Table 34: Exemplary cost-benefit analysis of retention-management measures

The assumption that 2 % of employees could be prevented from quitting by the pension-scheme offer (second row) is also considered conservative. It is deduced from the data of the online survey by calculating the difference in percentages of values 4 and 5 on a five-point Likert scale between the group of employees who value the pension scheme offer highly, on the one hand (see the top-right quadrant in Figure 12), and all the other respondents, on the other hand, with respect to their agreement with the item “If nothing extraordinary happens, I will definitely be working for Company_Z in two years’ time”. The difference is 4 %. Hence, using half of this percentage is considered a conservative assumption.

If, therefore, 2 % of 5,000 employees are susceptible to retention-management measures and abstain from quitting, the prevented total turnover costs might add up to roughly 1.9 million Euros. If it is assumed that the costs of the retention-management measures were 750,000 Euros and that the productivity gains due to higher motivated “stayers” compensate for the productivity loss of retaining the “wrong employees” (low performers), the net yield attained by these retention-management activities will amount to a little over 1.1 million Euros.

Such cost-benefit analyses could be calculated with other human-resources management tools as well. This enables Company_Z to check which of various human-resources management tools will provide the best net yield with respect to retention-management activities. (Cost-benefit analyses for other human-

resources management tools are not discussed here because the advantages of a tool also depend on its costs which would have to be gauged.)

(4) Exit: Even when an employee leaves the company, the occupational pension scheme is thematised among the employees. With regard to this aspect, Mr14_79 relates a little anecdote about a colleague who retired:

“Just a few weeks ago, we came together to see a colleague off. Until then, he had been Company_Z’s longest serving employee... with a job tenure of 48 years. [...] Due to the fact that we knew each other well, some colleagues joked: “Poor fellow. OPS-1959... Is it necessary to give you a special CARE packet to take it with you...?”

Such conversations among employees might at least call to mind the fact that Company_Z makes significant financial contributions to its employees, even via the later versions of its pension scheme.

Company_Z could actively use so-called “exit interviews” to ask those who leave the company, due to retirement or withdrawal, about their assessment of the occupational pension scheme. Moreover, those who voluntarily left their jobs might be asked if/how Company_Z’s pension scheme, or the occupational pension scheme of the new employer, had influenced their behaviour. (This might offer additional insight beyond the scope of this thesis. However, the turnover rate of Company_Z is extremely low.)

After discussing the implications for practice, the following chapter summarises in a concise form its practical contributions. Contribution 3 pre-empts the discussion in Chapter 6.3.

6.2. Contribution to practice

In Chapter 5.7, it was highlighted how this thesis contributes to theory. In this Chapter 6.2, the focus is on its contribution to practice.

Contribution to practice 1: This thesis provides a blueprint for analysing the role of occupational pension schemes in the employment relationship in a multi-faceted and comprehensive way. From the conceptual perspective, this blueprint for a mixed methods approach shows how such a comprehensive

approach, which includes analysis of employees' psychological contract and organisational commitment, can broaden the practitioners' understanding of the decision situation. As far as is known, such a blueprint is unique in the academic literature concerning occupational pension schemes in Germany. Companies that are interested in analysing the role of occupational pension schemes for the employment relationship can pass this blueprint along to their market-research department, or to external consultancies, as a starting-point for their own research studies. However, it has to be kept in mind that it will be necessary to modify the blueprint and to adjust it to the peculiarities of the respective company. Contribution 1 has roots in analytic generalisation (see details below).

Contribution to practice 2: Due to the fact that the mixed methods approach chosen for this thesis contained an online survey, statistical generalisations were possible as well. However, statistical generalisations from the sample of the 325 usable responses are only possible for the small population from which the sample is taken from: employees of Company_Z. A statistical generalisation requires that the sample represents the population. In Chapter 4.2.1, it was proven that this is the case here. This quantitative part of the research was complemented by a qualitative part consisting of 16 interviews. The practical contribution to Company_Z resulting from both parts is manifold. Since these contributions have already been discussed in detail, here the main contributions are summarised in note form.

The author of this thesis is not aware of any other empirical study in which the relevance of the occupational pension scheme is analysed for every stage of the employment relationship and from which recommendations for every stage are deduced as presented in this thesis (see Figure 19 and the discussion in Chapter 6.1). In this thesis, the focus was on the entry stage and the retention stage. The recommendations related, among others, to communication and information aspects, a proposal for how to conduct a cost-benefit analysis, proposals for how to use additional employer contributions to the pension-scheme offer as a selective reward element and recommendations for how to shape the psychological contract.

Contribution to practice 3: In this thesis, not only content-related recommendations are given (see contribution 2), but also recommendations on how to implement them successfully. These comprise the provision of a systematic approach to addressing the right people, to conveying the relevance and to overcoming barriers. These recommendations are given in the following Chapter 6.3.

6.3. Implementing the findings in practice

6.3.1. Debate on the theory/practice divide

In the academic literature, there is a longstanding debate on the “theory/practice divide”, respectively the tension between “rigour” and “relevance” (e.g., Starkey and Madon 2001, Pettigrew 2001, Van de Ven 2007, Hodgkinson and Rousseau 2009, Kieser and Leiner 2009, Nicolai and Seidl 2010, Perriton and Hodgson 2013, Latusek and Vlaar 2015). According to Van de Ven (2007), the gap between theory and practice can be threefold: First, scientific knowledge and practical knowledge might be distinct forms of knowledge. Second, there might be a knowledge-production problem. This view is based on the assumption that researchers might not be able to produce knowledge that is relevant to the practitioners’ daily professional lives. In this context, some researchers might highlight that they see a tension between “relevance” and “rigour”, in that higher relevance for practitioners can only be reached by making compromises with regard to the “rigour” of the research (e.g., Kieser and Leiner 2009). The third gap might result from a knowledge-transfer problem. This means that, even if the findings of scientists are relevant to practice, practitioners might not recognise their relevance and/or they might not be able to apply them.

The first two gaps interrelate. In Chapter 6.1 it was shown that the findings from the research conducted for this thesis deliver useful insights for practical actions. Thus, the second gap is obviously non-existent here. This implies that, for this thesis, the first potential gap is not relevant. Thus, only the third potential gap deserves closer attention (see below).

For Van den Ven (2007), human interaction plays an important role in overcoming the gap(s) between theory and practice (namely in all research

steps of this so-called diamond model). This basic notion informs his engaged-scholarship approach. He defines engaged scholarship “as a participative form of research for obtaining the different perspectives of key stakeholders (researchers, users, clients, sponsors, and practitioners) in studying complex problems” (Van de Ven 2007: 9). This view of a participative form of research resembles Gibbons’s Mode 2 knowledge production (Gibbons et al. 1994). Mode 2 knowledge production can be characterised by the following key points: transdisciplinary knowledge production, carried out non-hierarchically and by interaction and with reflexivity. In contrast to this, Mode 1 knowledge production is seen as the more traditional form of knowledge production in that it is mono-disciplinary, homogenous and carried out hierarchically. It should be mentioned here that, throughout the whole of the research process carried out for this thesis, the author aimed at considering the basic ideas of the engaged-scholarship model and of Mode 2 knowledge production. For example, the research approach was intensively discussed with the supervisor and peers in the Peer Review Workshops (for the academic side) and with practitioners in Company_Z (e.g., the head of the market-research department, the head of the human-resources department, the head of the pension and benefit department on the practitioners’ side). Based on these transdisciplinary interactions, which can also be seen as multiple quality checks, the research process underwent various changes and, hence, improvements.

Carlile (2004) separates the knowledge-transfer problem in the above described broad sense into three distinct parts: a) knowledge transfer across syntactic boundaries, b) knowledge translation across semantic boundaries and c) knowledge transformation across pragmatic and political boundaries. This differentiation will serve as the structure for Chapter 6.3.4 and will be elaborated on there.

Based on the theoretical aspects of the “theory/practice divide” presented above, the following paragraph will demonstrate how this divide can be eliminated, or at least reduced, with respect to the research findings of this thesis. In Chapter 6.1, various recommendations were given for how Company_Z could use the research findings relating to its offer of an occupational pension scheme in practice, especially within its recruiting and

retention-management activities. The next step in Chapter 6.3 will be to show how these recommendations can be successfully implemented. First, there is the question of who should be involved (Chapter 6.3.2). Second, there is a summary of why the research findings and the resulting recommendations are of relevance for Company_Z (Chapter 6.3.3). Third, it is briefly discussed how the potential barriers within the implementation process can be circumvented (Chapter 6.3.4).

6.3.2. Identifying stakeholders

Freeman defines a stakeholder as “any group or individual who can affect or is affected by the achievement of the organization’s objectives” (Freeman 1984: position 1152). It is considered important to know who the stakeholders are and what their key interests might be because this facilitates the addressing of them in a convincing way and anticipates any possible conflict of interests between them.

In the given context of the thesis, the main internal stakeholders of Company_Z and their key interests seem to be the following:

- a) executive board: gaining/defending a competitive advantage
- b) finance managers: high performance as measured via financial key figures including low/adequate personnel expenses;
- c) HR managers “right people in the right place at the right time”; high employer attractiveness; effective retention-management strategy; enhancing individual and organisational performance and productivity;
- d) works council recognition as strong negotiating partner who achieves a lot for the employees; improvement of joint partnership in the reward discussions;
- e) employees attractive employer who offers a high salary, an occupational pension scheme with high pension entitlements, further career opportunities, etc.

Due to the fact that the main reference person for the author was the head of the human-resources department, this is the first person with whom the

recommendations have to be discussed and who has to be convinced that it is worthwhile implementing them. After that, preferably with the support and legitimisation of the human-resources department, the head of the finance department should be addressed in order to obtain his approval for all the financial implications of possible changes in the application of funds. If the finance managers are supportive as well, the recommendations can be introduced to the executive board which predetermines whether or not the members of the works council will be asked if they will support the implementation of the recommendations. The members of the works council would, of course, discuss the recommendations with other employees in order to be able to represent their interests in the best way.

6.3.3. Relevance of findings

After having defined who the stakeholders seem to be, the relevance of the findings and the recommendations for these stakeholder groups are summarised. This is done by drawing on the work of Nicolai and Seidl (2010) who carried out a literature review in order to identify “the different forms of practical relevance that are explicitly or implicitly referred to management science” (Nicolai and Seidl 2010: 1264). Based on this literature review, they developed a taxonomy of three different forms of practical relevance: conceptual, instrumental and legitimative relevance. According to them, these three forms of relevance are concatenated with the basic steps in the decision-making process of the practitioners: conceptual relevance relates to the definition of the decision situation, instrumental relevance relates to the selection of one of various alternatives for action and legitimative relevance relates to the enforcement/legitimisation of the selected alternative.

Nicolai and Seidl (2010) hold the view that, in the past, managers focused primarily on the instrumental relevance of knowledge, which means the selection of the best of various alternatives in a given decision situation. For the authors, it would be an improvement if a greater focus were to be placed on conceptual relevance. Hence, they recommend that researchers aim at “enriching the practitioners’ understanding of the decision situation” (Nicolai and Seidl 2010: 1277) because this would lead to better decisions. (It can be

argued that the author followed this recommendation, not least through the conduct of interviews). Knowledge is of legitimative relevance when it is used to support or to legitimise management decisions after the decisions have been taken. In the following, the taxonomy described above is used for structuring purposes.

Conceptual relevance

In Chapter 6.1, it has been stated that active management of the psychological contract, with the occupational pension scheme as part of it, is to be recommended. Introducing the construct of the psychological contract is likely to broaden or even change practitioners' perspectives on decision situations. The same is applicable to the concept of organisational commitment. The conceptual relevance for the two main stakeholder groups on the part of Company_Z as the employer can be briefly summarised as follows.

For **finance managers**, it might be inferred from the construct of the psychological contract that Company_Z's offer of an occupational pension scheme is not only a tangible and calculable "product", but also that it has a non-calculable, psychological dimension. This might be surprising to them (and thereby broaden their view).

For **HR managers**, both concepts are obviously relevant for their communication strategy. Under the headings "Expectation management" and "Active management of the psychological contract", it was recommended that HR managers should provide job applicants with information about the occupational pension scheme as soon as possible. But HR managers will have to keep in mind that the form of their communication strategy will have a great impact on how employees will experience the pension scheme within their employment relationship: either as a more relational or as a more transactional relationship. "Relational" and "transactional" are technical terms used in the theory of psychological contract. They are closely related to the dimensions of organisational commitment, whereby "relational" is considered to be close to the affective commitment dimension and "transactional" is considered to be close to the calculative commitment dimension (see Chapter 2.4). Just to recall: In Chapter 6.1, it was considered that Company_Z should strengthen

the affective commitment dimension (and, hence, the relational employment relationship).

Instrumental relevance

In Chapters 4 and 5, it was shown that there seemed to be little or no difference between women and men or between older and younger employees with respect to the relevance of their occupational pension scheme to their decisions to accept Company_Z's job offer and to their decisions on whether or not to stay at Company_Z. Moreover, it was shown that this buttressed the recommendation that Company_Z should think of using the occupational pension scheme for selective retention-management measures targeted at key employees or based on the preferences of employees. With respect to the preferences of employees, it has to be kept in mind that the research revealed that the employees' overall knowledge is scarce and that it might be worthwhile to invest in a more individualised information policy.

The research has also shown that the relevance of the occupational pension scheme to employees' intentions to stay at Company_Z is significantly dependent on the design of the pension scheme: higher entitlements engender a higher retention effect.

For **finance managers** in particular, the direct retention effect of the pension scheme means that higher personnel costs caused by higher pensions entitlements may pay off. Table 34 provides an example (without differentiating between various designs of pension schemes) of how a cost-benefit analysis of retention-management measures can be carried out. This exemplary analysis can be modified accordingly when it is intended to use selective retention-management measures. Thus, for finance managers, the relevance of the findings and the recommendations in the paragraph above lie primarily in the chance of increasing the efficient use of financial resources.

For **HR managers**, the instrumental relevance of the findings and recommendations presented above is as follows. First, it was shown that employees perceive differences in different generations of occupational pension schemes if the differences are very obvious (which is the case here). Small differences would probably not be perceived unless the HR managers

provided more information about them via flyers, etc. Second, the occupational pension scheme obviously enriches the human-resources toolbox with respect to recruiting and retention-management measures. However, HR managers will have to find their own ways of addressing the right people or of accentuating the value of the occupational pension scheme to all (potential) employees. Chapter 6.1 offers practical examples of these tasks.

Legitimative relevance

The recommendations given above are also of legitimatising relevance.

The **finance managers** can use the cost-benefit analyses to justify additional costs that will be occasioned by any recruiting and retention-management measures.

The **HR managers** can draw on empirical figures which document the relevance of the occupational pension scheme for the employment relationship. It is considered a surplus value of the research conducted for this thesis that a mixed method approach, including multivariate techniques was used (factor analyses, regression analyses). This made it possible to gain more insight into complex coherencies which could not easily be gained otherwise.

6.3.4. Overcoming syntactic, semantic and pragmatic barriers

As discussed in Chapter 6.3.1, successful knowledge transfer, knowledge translation and knowledge transformation requires that possible syntactic, semantic and pragmatic barriers be tackled (Carlile, 2004). In the following a few examples are given of how this could be done.

Syntactic barriers exist when the researcher uses a terminology that is not understood by the stakeholders involved in the implementation of the research findings. Since, in general, various groups of stakeholders use different terminologies, the researcher has to align the presentation of the findings according to her/his audience. In Chapter 6.3.2, it was recommended, for example, first to address the relevant stakeholder groups separately in a certain sequence. This has the advantage that a common language can be used, one that is specific to the respective group of stakeholders.

Semantic boundaries occur when the meaning of a research finding is ambiguous or when it is doubtful whether or not the findings will be helpful in a given context. These barriers may be overcome, for instance by running a workshop with all relevant stakeholder groups. Such a common workshop would offer the opportunity to discuss open questions and clear up possible false assumptions, ambiguities, etc.

Pragmatic or political boundaries arise, for example, when the research findings generate conflicting interests between those affected. A workshop, as suggested above, might be useful for overcoming these barriers as well, because it might help to arbitrate between parties. This could be done, for example, by discussing the pros and cons of the given recommendations and by comparing them with the pros and cons of alternative recommendations that might emerge in the course of the discussion.

The focus of Chapter 6.3 has been on the theory/practice divide and how this divide might be overcome. This included practical recommendations for implementing the findings of this thesis in practice.

The final chapter 6.4 of this thesis is a reflective chapter. Chapter 6.4.1 summarises arguments against concerns/misunderstandings about case-study research. Nevertheless, the empirical research conducted for this thesis has limitations. These limitations are discussed in Chapter 6.4.2 which also contains recommendations for future research.

6.4. Reflection and Implications for future research

6.4.1. Rebutting concerns/misunderstandings about case-study research

In Chapter 3.2.2, several concerns/misunderstandings about case-study research mentioned by Yin (2018) and Flyvbjerg (2006) were compiled in Table 4 (see page 59). Partly, these concerns/misunderstandings have already been addressed in preceding chapters. In the following sections, all aspects that were listed in Table 4 are systematically discussed one by one. Thus, the following paragraph serves as a kind of summary which includes those aspects that have not yet been addressed.

First area of concern: Quality of research design

Lack of rigour: In Chapter 5.6, the four main criteria for judging the quality of empirical research were discussed. These four criteria, which are not specific to case-study research, are: construct validity, internal validity, external validity and reliability. It was shown what measures were taken in the research conducted for this thesis to meet these quality criteria (when applicable). Therefore, the emphasis in this paragraph is on the more general reproach that case-study research may lack rigour (Yin 2018). In 2008, Gibbert et al. (2008) published a paper entitled “What passes as a rigorous case study?” In this paper they analysed all case studies that were published in 10 leading management journals between the years 1995 and 2000, based on the four above-mentioned criteria. This indicates that they hold the view that there is no excuse for case-study researchers not meeting these quality criteria. Thus, if a case study lacks rigour, it is not a problem immanent to case studies but a problem for which the researcher has to be held responsible. One of the authors’ findings was that, in the three highest-ranked journals, the authors not only discussed all four quality criteria but also the relationship between them, for example by acknowledging that internal and construct validity were prerequisites for external validity (Gibbert et al. 2008). Based on this, the authors argued that a “case study author may emphasize the more fundamental types of validity at the expense of external validity, without diminishing the case study’s overall rigor, but not vice versa” (Gibbert et al. 2008: 1472). Thus, the authors put into perspective the often stated concern that case-study findings are not generalisable (which means that they lack external validity). This aspect will be taken up in paragraph 3.

Quality measures taken in the empirical research conducted for this thesis have been reported throughout this thesis. A brief summary, as a kind of answer to the wide-spread general reproach of “lack of rigour”, is given on page 59.

Tendency to confirm the researcher’s preconception: Flyvbjerg (2006) points out that this concern is not specific to case studies. According to him, this concern is also raised against qualitative research in general. However, he argues that this concern is not applicable because, in the academic literature,

there are various examples of researchers claiming that their preconceptions turned out to be wrong. In her often-cited article, Eisenhardt (1989: 546) states: “Although a myth surrounding theory building from case studies is that the process is limited by investigators' preconceptions, in fact, just the opposite is true.” She argues that researcher bias in case-study research is lower than in other research approaches because “constant juxtaposition of conflicting realities tends to ‘unfreeze’ thinking” (Eisenhardt 1989: 546).

With respect to this thesis, it can be said that the results of the empirical research refuted the author's assumption that Company_Z's occupational pension scheme would contribute to continuance commitment. This kind of preconception and its rebuttal were explicitly revealed (“Contrary to expectations...”, see page 135).

Second area of concern: Possible research aims

In this thesis, the concern that, unlike experiments, causes and effects can hardly be tested is of relevance for the regression analyses only. In Chapter 5.2, it was argued that, despite the cross-sectional design, a certain direction of effects could be assumed. This is taken up in Chapter 6.4.2.

The concern that case studies are most suitable for generating hypotheses and not for testing hypotheses and theory-building (Flyvbjerg 2006) has been contested in Chapter 5. However, it depends on the design of the case study as to whether or not this concern is legitimate. If, for example, a case-study design comprises a quantitative survey, hypothesis testing is, of course, possible. Nevertheless, it has to be kept in mind that it is likely to reach limitations in terms of statistical generalisations (see also next paragraph).

Third area of concern: Relevance of possible results

A key concern with respect to case-study research is the contention that scientific (or, used equivalently, statistical) generalisations are not possible and that it is not possible to generalise from a single case.

With regard to the latter, Flyvbjerg (2006) gives a famous example of an influential case: Galileo rejected Aristotle's law of gravity not through numerous observations but mainly through a conceptual experiment which was followed

by a practical one. Other authors state that it is not the task of the researcher to generalise from a single case but of those persons who want to make use of the research findings in their own contexts (Kennedy 1979, Gomm et al. 2000). Stake (1978) uses the term “naturalistic generalisations”: “I claim that case studies will often be the preferred method of research because they may be epistemologically in harmony with the reader’s experience and thus to that person a natural basis for generalization” (Stake 1978: 5). He emphasises that case studies which provide a wide range of details have the great advantage of offering readers the opportunity of “vicarious experiences” (Stake 1978: 85), which means that the readers might consider that the experiences or reflections reported in the case study may have been their own.

Lincoln and Guba (2000), however, act as critics with regard to the term “generalisation”. They prefer the term “transferability”. Here, it is also emphasised that it is left to the person who wants to make use of the findings to decide to what extent “transferability” is given. According to Lincoln and Guba (2000), the researcher has to present a detailed account of the case (“thick description”, p. 40) in order to enable such judgments.

Donmoyer (2000) draws on Piaget’s schema theory to illustrate the value of case studies beyond the discussion of their suitability for statistical generalisations. Simplistically, his reference might be summarised as follows: Case studies can enable the reader to have (vicarious) experiences that she/he might possibly not have had otherwise, which might extend the breadth and depth of the reader’s knowledge through linking new knowledge to what the reader has experienced and learned before.

The arguments presented above show that case studies, and even a single case study, might provide new and valuable insights beyond their/its limited strength of generalisability (in the sense of statistical generalisability). To promote this in this thesis, the author has tried to give a detailed and multi-faceted account of the case, including practical recommendations for Company_Z that might be valuable in the contexts of other companies as well. Moreover, the author of this thesis holds the view that the concern that theoretical (context-independent) knowledge is preferable to practical (context-dependent) knowledge seems to be somehow artificial. The contributions to

both theory and practice claimed in this thesis show that efforts to develop theoretical knowledge, on the one hand, and practical knowledge on the other hand, might interact with one another to their mutual benefit.

Fourth area of concern: Presentation of the results

Walsham emphasises (Walsham 1995, Walsham 2006) that the way in which case-study results are presented should not be considered less important than careful dealing with theoretical and methodological aspects. Like Siggelkow (2007), they argue that case studies should be written in a persuasive way. Besides fine rhetoric, the structure of the paper is also seen as a decisive criterion for a well-written paper. Recommendations for structuring case-study reports are given, for instance, by Stake (1995), Walsham (2006) and Yin (2018).

Although the richness of data seems to be a special challenge in terms of a good presentation of case-study results, concerns that results are presented inadequately and that there might be special problems in summarising specific cases can be faced (not least by drawing on the existent literature). This is the individual task of the researcher.

6.4.2. Limitations and implications for future research

From the author's point of view, the whole "journey" of writing this thesis was a great challenge. The reasons for this judgment are manifold and led, at least partly, to minor limitations of the work presented here.

The **first limitation** relates to access to data. The author tried to collect as many relevant data as possible and is very thankful to Company_Z's representatives for their openness to the research approach and for their support in collecting the data. There was, however, limited access to all the sources considered to have the potential of enriching the analysis further, such as internal statistics, further examples of written correspondence, or more figures from Company_Z's own market-research activities. In this context, another restriction was the limited time frame for collecting the data. All in all, it was only possible to spend five days on site. Nevertheless, the author of this thesis holds the view that the analysis is not biased by the limited access to

data due to the research approach and to various measures that were taken. For example, the mixed methods approach, with quantitative and qualitative data analysis, ensured a broad perspective on the overarching research question and offered the chance of triangulation. Moreover, throughout the whole research process, there were numerous discussions with the supervisor, with peers in the peer-review workshops, with experts in Company_Z or with other experts in the field of old-age provision.

The **second limitation** relates to the relatively large time span between data collection and data analysis. The reason for this was that the author of this thesis changed her job at the end of the year in which the data were collected and had to relocate. These parameters implied that participant-checking was not possible in a way that was considered ideal. Nevertheless, the author is of the opinion that the data are reliable, not least because all interviews were recorded and transcribed. Moreover, the author kept a learning log, as recommended by Moon (2006), or by Greene and Gibbons (1991), even at times when the workload in her new job was extremely high and the progress of the thesis was accordingly rather low. This helped to keep the work on track and to reflect relevant aspects even though they were not immediately written down in the body of the thesis.

A **third limitation** could be seen in the cross-sectional research design. In Chapter 5.3, it is assumed – based on arguments that are well-established in the academic literature – that the independent variables in the regression analyses influence the dependent variables. However, a proof of the directionality of the relationship between the independent variables and the dependent variable is not possible in the cross-sectional approach that was used in this thesis. Such a “proof” (if it were ever possible) would require a longitudinal design, or, even better, a series of experiments. Both of these options, however, would implicate other measurement problems (Hayes 2018). Hayes (2018: Chapter 1.4) presents a detailed discussion of causality-matters, which can also be seen as a line of argument for the legitimization of cross-sectional designs. Nevertheless, it has to be stated that, for the regression analyses in this thesis, the claimed impact of independent variables on the various dependent variables should be interpreted with due care. This is also

because the reliability and validity measures of the scales that built the basis for the calculations of the dependent variables (three variables with the factor scores for affective, continuance and normative commitment) partly exceeded the well-established thresholds only to a low extent. Moreover, in the six regression analyses, the highest explained variance was only 39.8 %.

A **fourth limitation** is seen in the fact that the research approach does not allow propositions with respect to “optimising” the design of the occupational pension scheme. The research has shown that the importance of an occupational pension scheme in the employees’ decisions on whether or not to accept a job or to stay at their employer is significantly dependent on its design. But it remains unrevealed which features of the pension scheme make the difference. Although the research approach did not aim to answer this question, it might be an interesting question for future research.

The final aspect segues into the next section of this chapter, in which the **implications for future research** are outlined.

First, the above mentioned fourth limitation of the empirical research can be overcome by a research study that explicitly asks respondents about their **preferences, particularly about trade-offs between various features of a pension scheme**. The analysis of trade-offs is especially important in case some features are mutually exclusive or in case improving a certain feature is only possible at the expense of another feature (due to the employers’ budget constraints, for example). As far as is known, there are only two studies in which the respondents’ preferences for various pension-plan characteristics are analysed and which allow for trade-offs between these characteristics. These studies are those of Gunderson and Luchak (2001) and Blaufus and Ortlieb (2009). The latter authors analyse the influence of tax complexity on employee preferences regarding occupational pension schemes by means of a conjoint analysis. Conjoint analysis is “any decompositional method that estimates the structure of a consumer’s preferences (e.g., part-worths, importance weights, ideal points) given his/her overall evaluations of a set of alternatives that are prespecified in terms of levels of different attributes” (Green and Srinivasan 1978: 104). The author holds the view that this analysis

method is highly suitable for analysing employees' preferences for pension-scheme features because it has several strengths, such as realistic decision situations for the respondents (assessment of the pension scheme as a whole and not only selected features of it) and the employer's chance to analyse the outcomes on an individual level as well. Via a conjoint analysis, Company_Z could analyse, for example, not only the relative importance that employees attribute to the absolute height of their prospective pension entitlements and to a potential flexibility to opt in or out whenever they want, but also the trade-off of the employees' preferences between these two features. For further details with respect to conjoint analysis and its fields of application, see Hartmann and Sattler (2002) and Rao (2014).

Second, with respect to future research, it would be interesting to conduct a **longitudinal study** which accompanies employees through their life-cycle and, if possible, across possible changes of employer. An important advantage would be that the impact of external factors on the relevance of the occupational pension scheme to the employment relationship could be reflected in a more multifaceted way. Loan-Clarke et al. (2010), for example, conducted a longitudinal study. However, the time period between the two waves of the survey was comparatively short (two years) and, thus, the study would not be able to cover life-cycles which would be of special relevance for analysing particularities of women's employment biographies or effects of respondents' aging.

Third, another field for future research would be the conducting of **similar studies** in different German branches, in companies without employer contributions or in companies which are not valued by their employees as caring employers. With respect to the latter, it would be of special interest if, in such environments, the occupational pension scheme does not contribute to continuance commitment either.

Future research studies may also include further statistical analyses, such as MANCOVA (as mentioned on page 284), with the three-factor-score variables for the three dimensions of organisational commitment as dependent variables in a single analysis and with covariates that the analysis controls for. Another example would be an analysis controlling for endogeneity. Endogeneity is

given when the dependent variable is correlated with the error term. One of three main reasons for endogeneity is a bias that occurs when (in simplified terms) one or more variables are not included in the analysis, i.e. those that have an impact on the dependent variable and are correlated with one or more explanatory variables (Bascle 2016).

Because of the complexity of the area of occupational pension schemes, which relates not only to human resources management, but also to labour law, tax and finance, this final chapter is certainly non-exhaustive. Nevertheless, this thesis closes the research gaps that were revealed in Chapter 3.1 and, thus, contributes both to theory and practice. To sum up, the blank areas on the map of occupational pension schemes have been successfully reduced but there are still blank areas left for other researchers to explore, to compare with the findings of this research and to replicate in other German companies.

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APPENDICES

Appendix 1

Gross pension replacement rates in selected OECD countries (2016)*

Country	male	female
Netherlands	96.9	96.9
Denmark	86.4	86.4
Italy	83.1	83.1
Austria	78.4	78.4
Luxembourg	76.7	76.7
Portugal	74.0	74.0
Spain	72.3	72.3
Turkey	69.9	67.0
Iceland	69.0	69.0
Israel	67.8	60.0
Slovak Republic	64.3	64.3
France	60.5	60.5
Hungary	58.7	58.7
Finland	56.6	56.6
Sweden	55.8	55.8
Greece	53.7	53.7
Estonia	49.7	49.7
Latvia	47.5	47.5
Belgium	46.7	46.7
Czech Republic	45.8	45.8
Norway	45.1	45.1
Switzerland	42.1	41.8
Canada	41.0	41.0
New Zealand	40.0	40.0
Korea	39.3	39.3
United States	38.3	38.3
Germany	38.2	38.2
Slovenia	38.1	40.1
Japan	34.6	34.6
Ireland	34.1	34.1
Chile	33.5	30.3
Australia	32.2	29.4
Poland	31.6	27.9
Mexico	26.4	24.8
United Kingdom	22.1	22.1

OECD (2018)

* The gross replacement rate is defined as gross pension entitlement divided by gross pre-retirement earnings. It is a measure of how effectively a pension system provides income during retirement to replace earnings, the main source of income prior to retirement.

Overview of literature with regard to Chapter 2.1: Occupational pension schemes as a human resources management tool

(chronological order)

Author(s)	Published in:	a. Sample size? b. Who? c. When? d. Where? e. How?	Aim / main results / contribution / central quotes
Schiller, B.R. and Weiss, R.D.	(1979)	a. 35,321 b. employees of 133 various companies c. late 60s d. US e. secondary data, OLS, logit models	The authors were able to match the data of employees with the pension scheme of the respective employer. (Obviously the authors subsume "occupational pensions" under "private pensions".). Caveat: Schiller and Weiss just calculate probabilities of quitting (without being able to differentiate between voluntary or involuntary turnover). "An employee's decision to quit is influenced not only by the <i>existence</i> of an employer-based pension plan (as others have demonstrated), but also by the provisions of that plan that determine the value of later retirement benefits and the probability of actually receiving them." (p. 379); important characteristics: vesting, contributory status, benefit levels and early retirement options. "We also observed that the low probability of vesting implied by stringent vesting requirements markedly increases quit probabilities among younger workers." (p. 379) "Finally, we noted that the imposition of contributory requirements substantially lessens the probability of quitting, presumably because it increases awareness of potential pension losses." (p. 379).
Taylor, S. and Earnshaw, J.	(1995)	a. 66 resp. b. employers c. 1992 d. north west of England e. survey / list of seven potential objectives	Hint at lack of empirical studies; out of the seven potential pension scheme offer objectives: first three with the highest percentages of "very significant" assessments: 1. retaining good employees: 73 % 2. attracting good staff: 51 % 3. improving industrial relations: 38 % first three with the highest percentages of "most important objective" assessments: 1. retaining good employees: 60 % 2. managing the retirement of staff: 16 % 3. attracting new staff: 12 %

Author(s)	Published in:	a. Sample size? b. Who? c. When? d. Where? e. How?	Aim / main results / contribution / central quotes
Luchak, A.	(1997)	a. 529 resp. b. employees c. 1988 d. Canada e. survey/ logistic regress.	Independent variable: job search intentions <ul style="list-style-type: none"> • “Pension incentives, employment security perceptions, and vacation pay were quantitatively the most significant determinants of job search intentions.” p. 345 • Employees who are entitled to an immediate pension benefit are “25.2 percentage points less likely to engage in job search than employees whose pensions are locked in and who have low service credits.” (p. 343)
Terry, N. and White, P.	(1997)	a. 88 resp. b. employers c. 1995 d. Scotland e. survey	On average employee contributions (3.7 % of salary) and employer contributions (9.8 % of salary) add up to 13.5 % of salary. (p. 163) “Next to no survey data exist on the <i>relative</i> potency of pension schemes as a means of achieving certain employee-related objectives.” (p. 167); 80 out of 82 employers who offered a pension scheme did not try to find out the “recruitment effectiveness” of their pension scheme; only two did it. (p. 167) Employers ranked existing offers that may help to <u>recruit</u> employees as follows (answers ‘a great deal’ plus “fair amount” as proportions of those employers who really offered it) (p. 168) <ol style="list-style-type: none"> 1. 91 % performance-related pay 2. 83 % company car 3. 78 % profit-related pay 4. 77 % pension scheme Employers ranked existing offers that may “ <u>encourage employees’ work and productivity</u> ” as follows (answers “a great deal” plus “fair amount” as proportions of those who were offered it) (p. 170) <ol style="list-style-type: none"> 1. 94 % performance-related pay 2. 93 % profit-related pay 3. 80 % profit share 4. 77 % executive share 9. 51 % pension scheme 75 out of 82 respondents answered that they have no evidence to indicate the effectiveness of their pension scheme “as a motivator of employees”; 7 answered “yes” (p. 169)

Author(s)	Published in:	a. Sample size? b. Who? c. When? d. Where? e. How?	Aim / main results / contribution / central quotes
Loretto et al.	(2000)	a. 1,124 resp. b. employees (one firm, financial sector) c. 2000 d. UK e. survey	<p>Employees were asked to assess 20 items on a six-point scale ranging from 1 (= item was essential for the job choice) to 6 (= item was irrelevant for the job choice).</p> <p>Pension schemes were the fifth most important item; more important, however, were (in descending order): annual review of salary, job security, competitive salary and opportunities for training.</p> <p>Knowledge of the amount of employer contributions: in general bad.</p> <p>Herzbergian phenomenon: i.e. pension-scheme offer can be seen as a hygiene factor: absence of the offer leads to dissatisfaction, providing this offer, however, does not lead to satisfaction (p. 270).</p>
Terry, N. and White, P.	(2000a)	see Terry and White (1997), follow-up interviews	<p>"As a recruitment, retention and motivation device, there is little evidence to suggest that employers undertake systematic, or regular evaluations of the effect of pension schemes on labour market behaviour". (p. 273)</p> <p>"Employers offer pension plans for two main reasons: paternalism and skills market." (p. 272)</p>
Terry, N. and White, P.	(2000b)	a. 14 follow-up interviews (see Terry and White, 1997) b. employers c. 1997 d. UK e. survey	<p>Reference is also made to Terry and White (1997): on average employees' contribution to occupational pension schemes amounts to 3.7 % of current salary; on average employer contribution amounts to 9.8 % of current salary (these average percentages include non-contributory schemes):</p> <p>Interviews emphasise that very few companies have systematically analysed the role of pensions for recruitment and motivation of employees:</p> <p>Apparent generosity of pension schemes can hide the fact that employers account for labour cost-effectiveness (for example by using over-funded defined benefit schemes to prompt employees to retire earlier in times when workforce reduction is required).</p> <p>Some employers differentiate between core and peripheral employees. The former are offered a more generous pension scheme. Other employers did the opposite: They tried to harmonise the pension-scheme offer for the whole workforce.</p> <p>Employers are often forced to react to changes in legislation (e.g. the right of scheme members to choose at least one third of the pension trustees by the Pensions Act 1995).</p>

Author(s)	Published in:	a. Sample size? b. Who? c. When? d. Where? e. How?	Aim / main results / contribution / central quotes
Taylor, S.	(2000)	a. 180 resp. b. employers c. 1996-1999 d. UK? e. survey + 30 follow-up interviews	<p>When asked to state how significant the reduction of staff turnover was as a reason for the provision of an occupational pension scheme, 25 % of the employers answered “very significant”, 51 % “moderately significant” and 24 % “insignificant”. (p. 253)</p> <p>“...suggesting that pensions are less often seen as tools of retention where a large portion of the workforce consists of more highly paid white collar-workers and graduates.” (p. 254).</p> <p>Respondents to the following statement: “Despite the recent legislation, occupational pensions remain a force acting to reduce employee turnover.”</p> <p>23 % strongly disagree or disagree, 31 % neither agree nor disagree, 46 % agree/strongly agree (p. 254)</p> <p>There are “grounds for questioning the extent to which pension schemes continue to have the clear retentive effect that they probably did have historically. In the UK, for example, occupational pensions must now be vested fully once two years’ service has been completed.” (p. 250)</p> <p>“Even where the respondent firmly believed that the pension scheme had a significant retentive effect, no evidence was offered to support the assertion other than general judgements derived from personal experience.” (p. 255)</p> <p>Frequently expressed view: “awareness and appreciation of pension schemes generally increase with age” (p. 256).</p>
Loretto et al.	(2001)	a. 460 b. undergraduate Business students c. 1997 d. University of Edinburgh	<p>Students had to assign a number to each item ranging from 1 to 6 (1: item was considered to be essential to their job choice, 6: item was considered to be irrelevant to their job choice); in brackets: percent of essential and very important responses (p. 396)</p> <p>1. promotion opportunities (85 %), 2. training opportunities (70 %), 3. Good pay (69 %), 4. Job security (65 %), 5. Reward based on merit (59 %), 6. Creative work (56 %), 7. Location (51 %), 8. Responsibility (49 %), 9. Travel opportunities (48 %), 10. Social climate (38 %), 11. Occupational pension (34 %), 12. Contribution to society (21 %), 13. Age profile (8 %).</p> <p>Answers to the question of pension-type preferences (p. 393):</p> <p>1. Personal pension (43 %)</p> <p>2. Occupational pension (24 %)</p> <p>3. It is too far in the future to have given the matter any thought (29%)</p> <p>4. State pension (4 %).</p>

Author(s)	Published in:	a. Sample size? b. Who? c. When? d. Where? e. How?	Aim / main results / contribution / central quotes
Luchak, A.A. and Gellatly, I.R.	(2001)	a. 427 resp. b. employees of a public utility company c. 1997 d. Canada e. survey	Dependent variables: affective and continuance commitment; "We found evidence that higher accruals under the pension plan increased continuance commitment but reduced affective commitment. Organizational commitment was also found to vary by job satisfaction, specific training, seniority, wage premia, and the perceived effectiveness of alternative dispute resolution methods." (p. 394) Positive labour market sorting is positively related to both affective and continuance commitment. This suggests that "part of the final-earnings plan's incentives operate through the sorting of 'job stayers' into long-term employment contracts. This is an indirect route by which pensions may elicit the more desirable, affective form of commitment to the organization." (pp. 407/408)
Hales, C. and Gough, O.	(2003)	a. 20 interviews/ 684 questionnaires from 68 organisations b. employees c. 1998/1999 d. UK e. mixed methods	Aims: First, to investigate the relative attractiveness to employees of different features of occupational pension scheme for both joining the scheme and for staying in it. Second, to investigate the process of joining the scheme. Findings: Ad 1: Perceived attractiveness of feature of occupational pension schemes (here only answers "strongly agree" on a five-point Likert scale) <ul style="list-style-type: none"> • Level of employer's contribution 39.0 % • Income replacement 30.1 % • Ability to regulate the retirement age 24.4 % • Level of employee contribution 21.1 % • Insufficient state pension 18.7 % • Death-in-service 6.1 % • Spouse's benefit 2.3 % • Lump sum 0.2 %

continued overleaf

Author(s)	Published in:	a. Sample size? b. Who? c. When? d. Where? e. How?	Aim / main results / contribution / central quotes
			<p>Ad 2: "Nearly a quarter of respondents joined the scheme automatically without a conscious decision to do so." (p. 330) "A further quarter remained with their pension scheme rather than opt-out." Answer categories:</p> <ul style="list-style-type: none"> • Automatic 24.7 % • I was a member pre-1988 and saw no reason to change 24.0 % • I took advice 22.7 % criticism of Hales and Gough's interpret. • I took advantage of all benefits of the pension scheme 14.2 % • Better value than a personal pension 6.6 % • Do not remember 7.9 % <p>Wishes of employees: more individualised pieces of information Fears/criticism of employees: lack of portability, low annuities, complexity of pensions</p>
Gough, O.	(2004)	a. 32 interviews/ 532 questionn. b. employers/ employees c. 2002 d. UK e. mixed methods	Research questions: 1. Why do employees decide not to join an occupational pension scheme? 2. How do men and women differ in their reasons for not joining? Ad 1: Most often cited was "got my own pension" followed by "intention to change jobs" Ad 2: For women the most important reasons for not joining is the fact that they assume that their partners will take care of their old-age provision.
Gough, O.	(2006)	a. 64 interviewees/ 108 questionn. b. employers c. 2002/2003 d. UK e. mixed methods	Aim: better understanding of the reasons why companies offer occupational pension schemes or not Research focused on "small" companies with five to 100 employees. Seven broad themes were derived from the focus group discussions. <ol style="list-style-type: none"> 1. market dynamics (e.g. need for recruiting employees in booming markets, attraction via a pension scheme) 2. dependency relationship between small and large firms (e.g. ensuring the loyalty of a core team by providing them with a pension scheme) 3. legislation/regulation and small firms (e.g. high requirements are seen as barriers to pension provision) 4. taxation/finance (e.g. interviewees considered employees to be unaware of tax incentives) <p style="text-align: right;"><i>continued</i></p>

Author(s)	Published in:	a. Sample size? b. Who? c. When? d. Where? e. How?	Aim / main results / contribution / central quotes
			<p>5. managerial influence (e.g. a paternalistic management style might enhance the probability of pension-scheme offers)</p> <p>6. trade-union presence</p> <p>7. human resources policy (e.g. recruitment and retention function, interviewees express that against their former judgements, pension-scheme offers might be important also for younger employees).</p> <p>Judgements in the quantitative survey with the highest means on a five-point Likert scale ("strong incentive" up to "strong barrier" (based on the answers of companies with and without a pension scheme):</p> <p>item belonging to 7. human resources policy: "Comply with industry", mean 1.72</p> <p>item belonging to 1. market dynamics: "New staff to enter new markets", mean: 1.87</p> <p>item belonging to 2. dependency relationship between small and large firms: "Loyalty of key staff.", mean 2.05</p> <p>item belonging to 3. legislation/regulation and small firms: "Stakeholder provision fulfils firm's responsibility", mean 2.05</p>
Byrne, A. and Rhodes, B.	(2006)	<p>a. 36</p> <p>b. employees</p> <p>c. ?</p> <p>d. UK</p> <p>e. 4 focus groups</p>	<p>Aim: Exploring employees' attitudes towards pensions.</p> <p>The members of the focus groups all belong to the same company. The interviewees were split up into four focus groups according to their membership of three different "generations" of pension schemes respectively; the fourth group is "non-membership"</p> <ul style="list-style-type: none"> • pension schemes are perceived as being highly complex; most interviewees knew little about their scheme • awareness of the need of saving for old-age increased with increasing age • most scheme members value the entitlement to the occupational pension scheme higher than other benefits or increased salary • surprise at the high level of the employer's contribution • members considered the money-back guarantee and the short investment period of the employer's share-save scheme as advantageous over the characteristics of the pension scheme • awareness of the Defined Benefit Scheme members that they probably would not be offered a DB scheme by a new employer; thus: retention factor • pension scheme was regarded as a potential recruitment factor only by DB members; some members noted that the pension scheme was not mentioned in the recruitment process • recruitment managers saw themselves not as experts in pensions and felt overchallenged by explaining details • interviewees favoured face-to-face information about the pension scheme over written material

Author(s)	Published in:	a. Sample size? b. Who? c. When? d. Where? e. How?	Aim / main results / contribution / central quotes
Rabe, B.	(2007)	a. 5,921 households (at the beginning b. secondary data; German Socio-Economic Panel; c. waves 1985-1998; d. W.-Germany	<p>"Pension-covered workers in Germany are three times less likely to change jobs than workers not covered by an occupational pension scheme." (p. 531)</p> <p>Three explanations for the negative relationship between pensions and mobility are prevailing: (p. 531)</p> <ul style="list-style-type: none"> • portability loss • Pension-covered workers may receive a compensation premium which discourages mobility. • "Workers who prefer stable employment may sort into jobs covered by pensions." (p. 532) <p>"pension coverage deters voluntary job transitions by imposing a capital loss on both vested and un-vested early leavers" (p. 550).</p>
National Association of Pension Funds (NAPF)	(2008)	a. 332 b. employers (HR managers) c. 2008 d. UK? e. survey	<p>see Figure 1 in the body of the thesis</p> <p>(caveat: very low response rate, 332 out of round about 30,000 HR contacts provided by Personnel Today) (p. 4)</p>
Gough, O. and Hick, R.	(2009)	a. 36 b. managerial employees c. d. UK? e. in-depth interv.	<p>Retention function of occupational pension schemes is considered to be stronger than the recruitment function (p. 165).</p> <p>While occupational pension schemes play only a "limited role" in the psychological contract of younger employees, they play a considerably more important role in the psychological contract of the older interviewees (p. 165).</p>

Author(s)	Published in:	a. Sample size? b. Who? c. When? d. Where? e. How?	Aim / main results / contribution / central quotes
National Association of Pension Funds (NAPF)	(2010)	a. 1248 b. employees c. Febr. 2012 d. UK e. survey (online)	Question: "How would you view an employer who offers a pension as opposed to one who does not?" (p. 9) Answers: 29 % "Much more positively", 48 % "More positively", 21 % "No difference", 1 % "More negatively", 1 % "Much more negatively" Results are claimed to be representative of the UK population as a whole (p. 2). 57 % of the respondents were members of a pension scheme, 30 % were not, 13 % had no access.
Loan-Clarke et al.	(2010)	a. t ₁ : 1,925 resp. t ₂ : 719 resp. b. employees (health profess.) c. t ₁ : 2005 t ₂ : 2007 d. UK e. survey (longit.)	Open-ended questions were used: 1) reasons for staying within the National Health Service (NHS) a) time 1 (2005): 8 answers were coded; the ranking for stayers was: 1. Job security (24.8 % of cases) 2. Pension (17.0 %) 3. Chance to develop professional skills/good professional development (16.1 %) b) time 2 (2007): 1. Enjoyable/interesting work/job satisfaction (22.2 %) 2. Pension (13.0%) 3. Flexible hours (11.9 %) 2) reasons for staying outside the NHS: Pensions were not mentioned. 3) reasons for leaving: Pensions were not mentioned. 4) reasons for returning: Pensions are clearly less relevant for returning to the NHS than staying with the NHS.
Luchak, AA. and Pohler, D.M.	(2010)	a. 424 resp. b. employees of a single company c. n/s d. Canada e. survey	Dependent variables: a) staying intentions, b) work effort, c) job performance, d) discretionary behaviour. • "Pension incentives can have favorable or unfavorable effects depending on whether employees perceive them as supportive relational contracts or as low-trust transactional contracts." (p. 61) • "The more employees perceive that marginal quit costs are being used as a control device by the employer, the more negative their effects on work effort, job performance, and discretionary behaviour are found to be. Conversely, where such quit costs are not perceived to be control devices, they are positively related to these same outcomes." (p. 75) • There was no significant main or moderated effect for marginal quit costs and staying intentions.
Foster, Liam	(2012)	a. 15 resp. b. fem.employees (18-30 years) c. 2010/2011 d. UK e. interviews	Study focuses on women. "Those in managerial and professional occupations also highlighted the role of the employer as important. This corresponds with the work of Loretto et al. (2000) who found that occupational pensions may have some, albeit limited impact on their choice of employer". (p. 779)

Author(s)	Published in:	a. Sample size? b. Who? c. When? d. Where? e. How?	Aim / main results / contribution / central quotes
Jasper, T. et al.	(2014)	a. 22,000 world-wide, thereof 2,000 in Germany b. employees c. 2013/2014 d. world-wide (incl. Germany) e. survey	<p>Study of the consultancy firm Towers Watson</p> <ul style="list-style-type: none"> item: It is important to me that my employer plays an active role with respect to the provision of an occupational pension scheme. (totally) agree: 63 % neither nor: 27 % (totally) disagree: 10 % (p. 7) item: The occupational pension scheme is an important reason for my decision to stay with my current employer. (totally) agree: 40 % neither nor: 32 % (totally) disagree: 28 % (p. 8) <p>27 % of the employees stated that the occupational pension scheme had played an important role in the choice of their current employer (p. 8).</p>

Ritzer and Trice-scale

(Ritzer and Trice 1969: 475)

Items based on five factors: pay, freedom, status, responsibilities, opportunities to go ahead

1. Would you definitely change your company with no increase in pay?
2. Would you definitely change your company with a slight increase in pay?
3. Would you definitely change your company with a large increase in pay?
4. Would you be undecided to change your company with a large increase in pay?
5. Would you definitely not change your company with a large increase in pay?
6. Would you definitely change your company with no more freedom?
7. Would you definitely change your company with a little more freedom?
8. Would you definitely change your company with much more freedom?
9. Would you be undecided to change your company with much more freedom?
10. Would you definitely not change your company with much more freedom?
11. Would you definitely change your company with no more status?
12. Would you definitely change your company with a little more status?
13. Would you definitely change your company with much more status?
14. Would you be undecided to change your company with much more status?
15. Would you definitely not change your company with much more status?
16. Would you definitely change your company with no more responsibility?
17. Would you definitely change your company with a little more responsibility?
18. Would you definitely change your company with much more responsibility?
19. Would you be undecided to change your company with much more responsibility?
20. Would you definitely not change your company with much more responsibility?
21. Would you definitely change your company with no more opportunity to go ahead?
22. Would you definitely change your company with a little more opportunity to go ahead?
23. Would you definitely change your company with much more opportunity to go ahead?
24. Would you be undecided to change your company with much more opportunity to go ahead?
25. Would you definitely not change your company with much more opportunity to go ahead?

Hrebiniak and Alutto-scale

(Hrebiniak and Alutto 1972: 559)

“Assume you were offered a position as a teacher (nurse), but with another employing organization. Would you leave your present organisation under any of the following conditions? (Please indicate what you would do by placing a check mark in the appropriate space.)

		yes, definitely	uncertain	no, definitely not
(1)	With no increase in pay			
(1)	With a slight increase in pay			
(3)	With a large increase in pay			
(4)	With no more freedom to be professionally creative			
(5)	With slightly more freedom to be professionally creative			
(6)	With much more freedom to be professionally creative			
(7)	With no more status.			
(8)	With slightly more status.			
(9)	With much more status.			
10)	To work with people who are no friendlier			
11)	To work with people who are a little friendlier			
12)	To work with people who are much friendlier”			

Mowdays, Steers and Porter: OCQ

Organisational Commitment Questionnaire (Mowday et al. 1979: 228)

1. I am willing to put in a great deal of effort beyond that normally expected in order to help this organisation to be successful.
2. I talk up this organization to my friends as a great organization to work for.
3. I feel very little loyalty to this organization. (R)
4. I would accept almost any type of job assignment in order to keep working for this organization.
5. I find that my values and the organization's values are very similar.
6. I am proud to tell others that I am part of this organisation.
7. I could just as well be working for a different organization as long as the type of work were similar. (R)
8. This organization really inspires the very best in me in the way of job performance.
9. It would take very little change in my present circumstances to cause me to leave this organization. (R)
10. I am extremely glad that I chose this organization to work for over others I was considering at the time I joined.
11. There's not too much to be gained by sticking with this organization indefinitely. (R)
12. Often, I find it difficult to agree with this organization's policies on important matters relating to its employees. (R)
13. I really care about the fate of this organization.
14. For me this is the best of all possible organizations for which to work.
15. Deciding to work for this organization was a definite mistake on my part. (R)

(R) denotes a negatively phrased and reverse-scored item

O'Reilly and Chatman-scale

(O'Reilly and Chatman 1986: 494)

1. If the values of this organization were different, I would not be attached to this organization.
2. Since joining this organization, my personal values and those of the organization have become more similar.
3. The reason I prefer this organization to others is because of what it stands for, its values.
4. My attachment to this organisation is primarily based on the similarity of my values and those represented by the organization.
5. What this organization stands for is important to me.
6. I am proud to tell others that I am a part of this organisation.
7. I talk up the university to my friends as a great organization to work for.
8. I feel a sense of 'ownership' for this organization rather than being just an employee.
9. Unless I'm rewarded for it in some way, I see no reason to expend extra effort on behalf of this organization.
10. How hard I work for the organization is directly linked to how much I am rewarded.
11. My private views about the university are different than those I express publicly.

Items 1 to 5: 'internalization'

Items 6 to 8: 'identification'

Items 9 to 11: 'compliance'

Items used for measuring organisational commitment

	Items	Item taken from...	
1.	I would be very happy to spend the rest of my career with Company_Z.	Meyer and Allen (1997): AC 1	Felfe
2.	It would be too costly for me to leave my employer, Company_Z, now.	Meyer and Allen (1997): CC 4 ↘	Felfe
3.	I do not attach much importance to remaining loyal to an employer.	Meyer and Allen (1990) mod. (see NC 1 to 3, 6, 7); mod. Meyer/Allen (1997): NC 1	<i>changed</i> ①
4.	I do not feel “emotionally attached” to Company_Z.	Meyer and Allen (1997): AC 6	Felfe
5.	Too much of my life would be disrupted if I decided I wanted to leave my employer, Company_Z, now.	Meyer and Allen (1997): CC 3	Felfe
6.	Even if it were to my advantage, I do not feel it would be right to leave Company_Z, now.	Meyer and Allen (1997): NC 2	Felfe
7.	I am proud of belonging to Company_Z.	Felfe (retranslation), AC	Felfe
8.	I believe that I have too few options to consider leaving Company_Z at the moment.	Meyer and Allen (1997): CC 6	Felfe
9.	I would feel guilty if I left Company_Z, now.	Meyer and Allen (1997): NC 3	Felfe
10.	I feel a strong sense of “belonging” to Company_Z now.	Meyer and Allen (1997): AC 8 ↘	Felfe
11.	I have already put too much of myself into Company_Z to consider working elsewhere.	Meyer and Allen (1997): CC 9 ↘	Felfe
12.	Changing the employer often, does not make a good impression.	Felfe (retranslation), NC	Felfe
13.	I think that my moral values fit in with those of Company_Z.	Felfe (retranslation), AC	Felfe
14.	Right now, staying with Company_Z is a matter of necessity as much as desire.	Meyer and Allen (1997): CC 5	<i>added</i>
15.	I would not leave Company_Z right now because I have a sense of obligation to the people in it.	Meyer and Allen (1997): NC 5	Felfe

AC: affective commitment item, CC: continuance commitment item, NC: normative commitment item; ‘Felfe’ is used as an abbreviation for the full reference Felfe et al. (2010).

① The original item of Felfe et al. (2010) was: “If I would leave this organisation, many people who are important to me would not understand it or would be disappointed.” This item was replaced with item 3 (see above) because the original item seemed to have a content-related overlap with item 15 (see above).

Inviting e-mail and original online questionnaire (German version)



Sehr geehrte Z-Mitarbeiterin, sehr geehrter Z-Mitarbeiter,

erinnern Sie sich noch an Ihre ersten Arbeitstage bei der Z-Versicherung? Seither ist ein wenig Zeit vergangen.

In dieser Online-Befragung geht es vor allem um...

- Gründe für Ihre damalige Entscheidung, das Arbeitsangebot der Z-Versicherung anzunehmen,
- Zufriedenheit mit bestimmten Aspekten Ihres beruflichen Umfeldes und um
- Ihre Einschätzung zu einigen Arbeitgeberleistungen, wie beispielsweise der betrieblichen Altersversorgung.

Die Befragung erfolgt streng anonym. Ein Rückschluss auf Ihre Person ist ausgeschlossen. Dafür bürgt auch das Siegel rechts unten auf dieser Seite.

Bitte beteiligen Sie sich bis zum **13.02.2015** an dieser Online-Befragung. Die Beantwortung der Fragen wird lediglich rund **zehn Minuten** in Anspruch nehmen. Für Ihre Teilnahme bedanke ich mich sehr herzlich im Voraus.

Mechthild Lütke Kleimann

(Der Fragebogen wurde am 28.11.2014 von der Ethik-Kommission der Forschungsbereiche der University of Bradford freigegeben.)

Frage 1

Sie sind seit einiger Zeit bei der Z-Versicherung beschäftigt.

Wie wichtig waren die nachstehenden Aspekte für Ihre Entscheidung, für die Z-Versicherung zu arbeiten?

Nachstehend sind einige Aspekte, die bei dieser Entscheidung eine Rolle gespielt haben könnten, in beliebiger Reihenfolge aufgeführt. Falls Aspekte fehlen, die für Sie wichtig waren, können Sie ganz unten auf dieser Seite eigene Ergänzungen vornehmen.

	sehr wichtig				überhaupt nicht wichtig
Image der Z-Versicherung	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ihr persönlicher Eindruck von Ihren Kontaktpersonen in der Bewerbungsphase	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nähe zu Ihrem jetzigen Wohnort	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Höhe des Gehaltspakets	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Angebot variabler Vergütungsbestandteile	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ausgestaltung der betrieblichen Altersversorgung	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Arbeitsinhalte	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gestaltungsspielräume bei der Arbeit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
berufliche Weiterentwicklungsmöglichkeiten	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Arbeitsplatzsicherheit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

voraussichtliche Work-Life-Balance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Flexibilität Ihrer Arbeitszeit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
die (ggf. spätere) Vereinbarkeit von Familie und Beruf	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
attraktives Umfeld des Unternehmensstandortes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
fehlendes Alternativ-Angebot eines anderen Arbeitgebers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
anderer Aspekt, und zwar <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
anderer Aspekt, und zwar <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Frage 2

Bitte denken Sie bei den nachstehenden Aspekten an Ihre aktuelle berufliche Situation bei der Z-Versicherung.

Wie zufrieden sind Sie aktuell mit den nachstehenden Aspekten?

Wenn Ihre Zufriedenheit bezüglich der Gesamtsituation am Arbeitsplatz durch andere als die nachstehenden Aspekte beeinflusst wird, können Sie unten auf dieser Seite eigene Ergänzungen vornehmen.

	sehr zufrieden				überhaupt nicht zufrieden
dem Image der Z-Versicherung	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
der Höhe Ihres Gehaltspakets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Ihren variablen Vergütungsbestandteilen					
Ihrer betrieblichen Altersversorgung					
Ihren Arbeitsinhalten					
Ihren Gestaltungsspielräumen bei der Arbeit					
den Angeboten Ihres Arbeitgebers zur beruflichen Weiterentwicklung					
Ihren dienstlichen Beziehungen zu Kolleginnen und Kollegen					
Ihrer dienstlichen Beziehung zum/zur direkten Vorgesetzten					
dem Betriebsklima					
der Arbeitsplatzsicherheit					
Ihrer Work-Life-Balance					
Ihrer Gesamtsituation am Arbeitsplatz					
mit anderen Aspekten, und zwar <input type="text"/>					
mit anderen Aspekten, und zwar <input type="text"/>					

Frage 3

Inwieweit stimmen Sie den folgenden Aussagen zu?

	stimme vollständig zu				stimme überhaupt nicht zu
Ich wäre sehr froh, mein weiteres Berufsleben bei der Z-Versicherung verbringen zu können.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Es wäre mit zu vielen finanziellen Nachteilen für mich verbunden, wenn ich momentan meinen Arbeitgeber, die Z-Versicherung, verlassen würde.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Einem Arbeitgeber treu zu bleiben, messe ich persönlich keine große Bedeutung bei.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich fühle mich emotional nicht sonderlich mit der Z-Versicherung verbunden.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Zu vieles in meinem Leben würde sich verändern, wenn ich meinen Arbeitgeber Z jetzt verlassen würde.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Selbst wenn es für mich vorteilhaft wäre, fände ich es nicht richtig, die Z-Versicherung zu verlassen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich bin stolz darauf, bei der Z-Versicherung beschäftigt zu sein.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich glaube, dass ich momentan zu wenig alternative Beschäftigungsmöglichkeiten habe, um einen Arbeitgeberwechsel ernsthaft in Erwägung zu ziehen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich würde mich irgendwie schuldig fühlen, wenn ich die Z-Versicherung jetzt verlassen würde.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich empfinde ein starkes Gefühl der Zugehörigkeit zur Z-Versicherung.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich habe schon zu viel Kraft und Energie in meine Arbeit gesteckt, um jetzt noch an einen Arbeitgeberwechsel zu denken.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Es macht keinen guten Eindruck, häufiger den Arbeitsplatz zu wechseln.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Ich denke, dass meine Wertvorstellungen zu denen der Z-Versicherung passen.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bei meinem jetzigen Arbeitgeber Z zu bleiben, resultiert eher aus der Notwendigkeit als aus meinen Wünschen.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ich würde meinen Arbeitgeber Z jetzt nicht verlassen, weil ich mich einigen Leuten darin verpflichtet fühle.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wenn nichts Besonderes passiert, werde ich in zwei Jahren auf jeden Fall noch bei der Z-Versicherung beschäftigt sein.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Frage 4

Inwieweit treffen die folgenden Aussagen aus Ihrer Sicht zu?

	trifft voll zu				trifft gar nicht zu
Private Altersvorsorgeformen halte ich für attraktiver als die betriebliche Altersvorsorge der Z-Versicherung.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Die Z-Versicherung hat mir <i>im Zuge meiner Einstellung</i> eine marktgerechte betriebliche Altersversorgung <i>zugesagt</i> .	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Die Z-Versicherung hat mir als Mitarbeiter/in <i>tatsächlich</i> eine marktgerechte Altersversorgung <i>bereitgestellt</i> .	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Meine späteren Ansprüche aus der gesetzlichen Rentenversicherung werden ausreichen, um im Alter finanziell sorgenfrei leben zu können.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ich bin darüber informiert, unter welchen Voraussetzungen Anwartschaften aus der betrieblichen Altersversorgung zu einem neuen Arbeitgeber "mitgenommen" werden können.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Die betriebliche Altersversorgung der Z-Versicherung war für mich ein wichtiger Grund, das Arbeitsvertragsangebot der Z-Versicherung anzunehmen.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Die betriebliche Altersversorgung der Z-Versicherung ist für mich ein wichtiger Grund, bei der Z-Versicherung zu bleiben.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Aufgrund einer zu erwartenden Erbschaft werde ich im Alter finanziell sorgenfrei leben können.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ich verfüge über hinreichendes Informationsmaterial zur betrieblichen Altersversorgung der Z-Versicherung.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Die Z-Versicherung bietet die betriebliche Altersversorgung primär aus Fürsorgeaspekten für die Mitarbeiter/innen an.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Frage 5

Nehmen Sie bitte an, dass die Z-Versicherung Ihnen die folgenden zwei Angebote unterbreitet. Bitte klicken Sie an, welche der beiden Alternativen Sie vorziehen würden:

- ☐ a) eine zusätzliche Gehaltserhöhung
- ☐ b) ein zu a) wertgleicher zusätzlicher Arbeitgeberbeitrag zu Ihrer betrieblichen Altersvorsorge

Frage 6

Die Z-Versicherung hat im Jahr 2004 ihr Angebot der betrieblichen Altersversorgung geändert. Geben Sie bitte daher an, ob Sie vor oder nach dem 01.01.2004 Ihren ersten Arbeitstag bei der Z-Versicherung hatten.

- ☐ Ich habe **nach** dem 01.01.2004 begonnen, bei der Z-Versicherung zu arbeiten.
- ☐ Ich habe **vor** dem 01.01.2004 begonnen, bei der Z-Versicherung zu arbeiten.

Frage 7

Wandeln Sie zurzeit mehr Entgelt um als Ihren Pflicht-Entgeltumwandlungsbetrag in Höhe von 1,6 % der ausgezahlten versorgungsfähigen Bezüge?

- ☐ ja
☐ nein
☐ weiß nicht

Frage 8

Bitte denken Sie bei den nachstehenden Aspekten an Ihre berufliche Situation bei der Z-Versicherung.

Wie gut fühlen Sie sich informiert über ...

	sehr gut informiert				sehr schlecht informiert
... die Unternehmensziele	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
... Ihre Aufstiegsmöglichkeiten bei der Z-Versicherung	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
... das, was von Ihnen an Ihrem Arbeitsplatz verlangt wird	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
... wie Ihre Arbeitsleistung von Ihrem Vorgesetzten eingeschätzt wird	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
... über das Vergütungssystem	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
... über die betriebliche Altersversorgung	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Frage 9

Bitte benennen Sie, in welcher der nachstehenden Formen ("Durchführungswege") Ihre aktuelle betriebliche Altersversorgung bei der Z-Versicherung ausgestaltet ist.

Bitte klicken Sie die zutreffende(n) Form(en) an. Mehrfachnennungen sind möglich.

Mehrfachantwort möglich - Maximal 3 Antworten

- ☐ Direktzusage
- ☐ Unterstützungskasse
- ☐ Direktversicherung
- ☐ Pensionskasse
- ☐ Pensionsfonds
- ☐ Ich verfüge aktuell über keine betriebliche Altersversorgung.

- ☐ Ich kann keine Auskunft zur Form meiner aktuellen betrieblichen Altersversorgung geben.

Frage 10

Zum Abschluss dieser Frage bitten wir Sie um einige statistische Angaben.

Die Datenauswertung erfolgt streng anonym. Ein Rückschluss auf Ihre Person ist völlig ausgeschlossen.

Wenn sich am rechten Rand des jeweiligen Antwortkästchens ein kleiner Pfeil nach unten befindet, klicken Sie bitte diesen Pfeil an. Dann sehen Sie eine Liste mit möglichen Antworten.

Scrollen Sie bitte ggf. bei der Beantwortung mit der Maus am rechten Bildschirmrand nach unten, um alle Teilfragen sehen und nach der letzten Teilfrage die Befragung abschließen zu können.

Ihr Geschlecht?

Ihr Geburtsjahr?

Ihr Familienstand?

Welchen höchsten (beruflichen) Ausbildungsabschluss haben Sie?

Seit wann sind Sie bei der Z-Versicherung beschäftigt?

Haben Sie einen befristeten oder unbefristeten Arbeitsvertrag?

Welche Erwerbssituation trifft auf Sie zu?

Für wie viele Mitarbeiter/innrn haben Sie Personalverantwortung?

In welcher Funktion sind Sie bei der Z-Versicherung tätig?

In welche Kategorie fällt Ihr aktuelles **jährliches fixes Bruttogehalt**?

Variable Vergütungskomponenten und Arbeitgeberbeiträge zur betrieblichen Altersversorgung sind nicht zu berücksichtigen.

Inviting e-mail preceding the online questionnaire (translated English version)

[on 02/02/2015, sent via e-mail to the sample]

Dear Colleagues,

Our company supports the doctoral project of Ms Lütke Kleimann.

Ms Lütke Kleimann is a native of *[name of a city]*. She works for an organisation in Bonn and does an extra occupational doctorate at the Bradford University School of Management.

In her doctoral dissertation she analyses the role of different influences on employees' decisions on whether or not to accept a job offer and on whether or not to stay at their company.

Please support the doctoral project of Ms Lütke Kleimann by filling in her online questionnaire. Your participation is all the more important because, due to efficiency reasons, we are only inviting some of our employees to engage in this.

We would be pleased to receive your answers by 13/02/2015 at the latest. The process time will be about 10 minutes.

Here is the link to the online survey:

<https://www.onlineumfragen.com/login/cfm?umfrage=57655>

We assure you that your answers will be transmitted in encrypted form. Moreover, we assure that your answers will be saved and analysed anonymously and that Ms Lütke Kleimann has exclusive access to your data.

Ms Lütke Kleimann will share the results of the doctoral project with us. Thus, there will also be a benefit for our Company_Z.

Also, on behalf of Ms Lütke Kleimann, we thank you for your support!

Yours sincerely

ppa. *[name]*
Head of HR

[name]
works council

PS: In case of further inquiry please write to *[e-mail address]*.

Translated online questionnaire (English version)



Dear Company_Z Employees,

Do you remember your first days working at our insurance company? Since then, some time has elapsed.

This online survey deals with ...

- the reasons for your decision at the time to accept the job offer from our insurance company;
- your satisfaction with certain aspects of your professional context;
- your assessment of some of the benefits of your employer, such as the occupational pension scheme.

All your answers will remain strictly anonymous. No participant can be identified from the results data set and this is also safeguarded by the seal at the bottom on the right.

We would be very grateful if you would complete the questionnaire by 13/02/2015 at the latest. It will take you only about 10 minutes. Thank you very much in advance for your participation.

Mechthild Lütke Kleimann

(Ethics approval was granted by the Chair of the Humanities, Social and Health Sciences Research Ethics Panel at the University of Bradford on 28/11/2014.)

1. You have been working for Company_Z for some time now.

How important were the following factors in influencing your decision to work for Company_Z?

Some factors that might have played a role in your decision are listed below in no particular order. If factors that were important to you are missing, please add these at the bottom of this page.

		very important ↓				not at all important ↓
a)	the image of the Company_Z	1	2	3	4	5
b)	your personal impression of the persons who were in contact with you during your application process	1	2	3	4	5
c)	proximity to your place of residence	1	2	3	4	5
d)	the total amount of your compensation components	1	2	3	4	5
e)	existence of variable compensation components	1	2	3	4	5
f)	design of your pension scheme	1	2	3	4	5
g)	work content	1	2	3	4	5
h)	creative leeway concerning your work	1	2	3	4	5
i)	further career opportunities	1	2	3	4	5
j)	your workplace security	1	2	3	4	5
k)	your expected work-life-balance	1	2	3	4	5
l)	the flexibility of your working hours	1	2	3	4	5
m)	(possibly later on) compatibility of family and work	1	2	3	4	5
n)	attractive surrounding of the location of the company	1	2	3	4	5
o)	no alternative offer of another employer	1	2	3	4	5

other aspect(s), namely

p)	_____	1	2	3	4	5
q)	_____	1	2	3	4	5

2. Please think of your current occupational situation at Company_Z.**How satisfied are you with the following aspects?**

If your satisfaction with your entire situation regarding your workplace is influenced by other than those factors mentioned below, please add these factors at the bottom of this page.

		very satisfied ↓					not at all satisfied ↓
a)	the image of Company_Z	1	2	3	4	5	
b)	the total amount of your compensation components	1	2	3	4	5	
c)	your variable compensation components	1	2	3	4	5	
d)	your pension scheme	1	2	3	4	5	
e)	your work content	1	2	3	4	5	
f)	your creative leeway concerning your work	1	2	3	4	5	
g)	the offers of your employer regarding your career opportunities	1	2	3	4	5	
h)	your professional relationship with your hierarchical superior	1	2	3	4	5	
i)	your professional relationship with your colleagues	1	2	3	4	5	
j)	the working atmosphere	1	2	3	4	5	
k)	your workplace security	1	2	3	4	5	
l)	your work-life balance	1	2	3	4	5	
m)	your entire situation regarding your workplace	1	2	3	4	5	
other aspect(s), namely							
n)	_____	1	2	3	4	5	
o)	_____	1	2	3	4	5	

3. To what extent do you agree with the following statements?

	strongly agree ↓				strongly disagree ↓
I would be very happy to spend the rest of my career with Company_Z.	1	2	3	4	5
It would be too costly for me to leave my employer, Company_Z, now.	1	2	3	4	5
I do not attach much importance to remaining loyal to an employer.	1	2	3	4	5
I do not feel "emotionally attached" to Company_Z.	1	2	3	4	5
Too much of my life would be disrupted if I decided I wanted to leave my employer, Company_Z, now.	1	2	3	4	5
Even if it were to my advantage, I do not feel it would be right to leave Company_Z, now.	1	2	3	4	5
I am proud of belonging to Company_Z.	1	2	3	4	5
I believe that I have too few options to consider leaving Company_Z at the moment.	1	2	3	4	5
I would feel guilty if I left Company_Z, now.	1	2	3	4	5
I feel a strong sense of "belonging" to Company_Z now.	1	2	3	4	5
I have already put too much of myself into Company_Z to consider working elsewhere.	1	2	3	4	5
Changing the employer often, does not make a good impression.	1	2	3	4	5
I think that my moral values fit in with those of Company_Z.	1	2	3	4	5
Right now, staying with Company_Z is a matter of necessity as much as desire.	1	2	3	4	5
I would not leave Company_Z right now because I have a sense of obligation to the people in it.	1	2	3	4	5
If nothing extraordinary happens, I will definitely be working for Company_Z in two years' time.	1	2	3	4	5

4. To what extent do you agree with the following statements?

	strongly agree ↓				strongly disagree ↓
I consider private forms of old age provision more attractive than the pension scheme of Company_Z.	1	2	3	4	5
<i>On the occasion of my employment</i> , Company_Z pledged itself to provide me with a market-compliant occupational pension scheme.	1	2	3	4	5
Company_Z has <i>actually</i> provided me with a market-compliant occupational pension scheme.	1	2	3	4	5
My eventual entitlements with respect to my statutory pensions will last out a worryless life as a retiree.	1	2	3	4	5
I am well-informed about the conditions under which I can transfer my acquired pension entitlements to a new employer.	1	2	3	4	5
The occupational pension scheme of my employer was an important reason for me to accept the job offer of Company_Z.	1	2	3	4	5
The occupational pension scheme of my employer is an important reason for me for staying with Company_Z.	1	2	3	4	5
Due to an inheritance that I am expecting, I will be able to live free of worries as a retiree.	1	2	3	4	5
I have sufficient information at my disposal regarding the pension schemes offered by Company_Z.	1	2	3	4	5
Company_Z offers its pension scheme primarily for reasons of care for its employees. .	1	2	3	4	5

5. Please assume that Company_Z will make two different offers to you. Please tick which of the following offers you would prefer.

a)	additional pay rise	<input type="radio"/>
b)	an additional employer contribution to your pension scheme which is equal in value to a)	<input type="radio"/>

6. Company_Z changed its pension scheme offer in 2004. Thus, please state whether you had your first working day before or after the 1st January 2004.

a)	I started working for Company_Z after the 1 st January 2004.	<input type="radio"/>
b)	I started working for Company_Z before the 1 st January 2004.	<input type="radio"/>

7. Do you convert more salary than your compulsory contribution requires?		
<i>(FILTER QUESTION DEPENDING ON ANSWER TO QUESTION 6: THIS QUESTION IS ONLY RELEVANT IF THE RESPONDENT ANSWERED THAT HE/SHE STARTED WORKING FOR COMPANY_Z AFTER THE 1ST JANUARY 2004).</i>		
a)	yes	<input type="radio"/>
b)	no	<input type="radio"/>
c)	I do not know	<input type="radio"/>

8. To what extent do you feel being informed about the following aspects?						
		very well informed			very badly informed	
		↓			↓	
... the corporate objectives	1	2	3	4	5	
... your career opportunities in Company_Z	1	2	3	4	5	
... what is expected from you at work	1	2	3	4	5	
... how your hierarchical superior assesses your job performance	1	2	3	4	5	
... the compensation system of your company	1	2	3	4	5	
... your occupational pension scheme	1	2	3	4	5	

9. Please tick which of the following methods of implementing occupational pension schemes is the one that applies to your current occupational pension scheme with Company_Z.		
<i>(Multiple answers are possible.)</i>		
a)	book reserve	<input type="radio"/>
b)	support funds	<input type="radio"/>
c)	direct insurance	<input type="radio"/>
d)	pension institution	<input type="radio"/>
e)	pension funds	<input type="radio"/>
f)	I do not have any form of an occupational pension scheme.	<input type="radio"/>
g)	I am not able to give any information about the form of my occupational pension scheme.	<input type="radio"/>

10. At the end of this questionnaire, we ask you for some statistical pieces of information. The analysis will take place strictly anonymously. It will be impossible to trace back answers to any particular person.

If not otherwise specified, please tick everything that applies to you with regard to the following questions.

Your sex? <ul style="list-style-type: none"> - male - female 	<input type="radio"/> <input type="radio"/>
Please fill in your year of birth: <div style="display: flex; justify-content: flex-end; gap: 10px;"> <input style="width: 30px; height: 30px; border: 1px solid black;" type="text"/> <input style="width: 30px; height: 30px; border: 1px solid black;" type="text"/> <input style="width: 30px; height: 30px; border: 1px solid black;" type="text"/> <input style="width: 30px; height: 30px; border: 1px solid black;" type="text"/> </div>	
Your present marital status? <ul style="list-style-type: none"> - single - married - civil partnership - divorced - widowed 	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
What is your highest (occupational) qualification? (Multiple answers are possible.) <ul style="list-style-type: none"> - completed apprenticeship - completed dual study - bachelor (at university of applied sciences or at university) - degree of a university of applied sciences (diploma/master) - degree of a university (diploma/master/state examination) - doctorate - none of these qualifications qualification 	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
Since when have you been working for Company_Z? Please fill in the year of your appointment. <div style="display: flex; justify-content: flex-end; gap: 10px;"> <input style="width: 30px; height: 30px; border: 1px solid black;" type="text"/> <input style="width: 30px; height: 30px; border: 1px solid black;" type="text"/> <input style="width: 30px; height: 30px; border: 1px solid black;" type="text"/> <input style="width: 30px; height: 30px; border: 1px solid black;" type="text"/> </div>	
Do you have a temporary or a permanent employment contract? <ul style="list-style-type: none"> - temporary employment contract - permanent employment contract 	<input type="radio"/> <input type="radio"/>
What is your employment situation like? <ul style="list-style-type: none"> - full-time - part-time 	<input type="radio"/> <input type="radio"/>
For how many employees do you have personnel responsibility? <ul style="list-style-type: none"> - for none - for 1 to 3 - for 4 to 6 - for 7 to 9 	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>

<ul style="list-style-type: none"> - for 10 to 25 - for 26 to 100 - for 101 to 500 - for more than 500 	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
In what function are you currently working for Company_Z <ul style="list-style-type: none"> - head of division - head of department - group leader - team leader - project manager - specialist without leadership role - clerk - other function 	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
Into which category does your current annual gross fix income fall? (variable salary components and contributions to pension schemes should not be allowed for)	
- less than € 9,999 annually	<input type="radio"/>
- € 10,000 to € 19,999 annually	<input type="radio"/>
- € 20,000 to € 29,999 annually	<input type="radio"/>
- € 30,000 to € 39,999 annually	<input type="radio"/>
- € 40,000 to € 49,999 annually	<input type="radio"/>
- € 50,000 to € 59,999 annually	<input type="radio"/>
- € 60,000 to € 69,999 annually	<input type="radio"/>
- € 70,000 to € 79,999 annually	<input type="radio"/>
- € 80,000 to € 89,999 annually	<input type="radio"/>
- € 90,000 to € 99,999 annually	<input type="radio"/>
- € 99,999 annually and more	<input type="radio"/>

Thank you very much for your answers!

Annotation: Company_Z asked to have the positive assessments of the Likert scales put on the left side of the scale and the negative assessments on the right side because this corresponds to the usual structure of internal surveys. Since the tool which was used for the online questionnaire (onlineumfragen.com) automatically assigns a score of 1 for the answer category on the left-hand side and a score of 5 for the answer category of the right-hand side all answers were recoded in such a way that high scores represent high commitment.

Interview guideline
‘Occupational pension schemes’
– Employees’ perspective –

In blue font and in italics: comments

1. “How long have you been working for this company?”

warm-up question

2. “I would like to ask you several questions that pertain to your working environment. For this purpose, I am not only going to ask you the questions, but right at the beginning I am also going to ask you to fill in two sheets that I will hand over to you. I will come back to these sheets during the course of the interview.”

read out the question in the box at the top of Sheet 1 (see below)

- 1. Long-term workplace security
- 2. Good career opportunities
- 3. Support in case of personal problems
- 4. Chance to participate in decision processes
- 5. Pieces of information with respect to important decisions
- 6. Wage increases for securing the standard of living
- 7. Fair pay in comparison to the wages that other employers pay to employees with comparable tasks
- 8. Fair pay regarding the assigned tasks
- 9. Provision of an occupational pension scheme that leads to entitlements that are usual in the industry
- 10. State-of-the-art training opportunities
- 11. Training that is necessary for doing the job in a good manner
- 12. Autonomy that is necessary for doing the job in a good manner
- 13. Guidelines and standardised workflows that make the occupational tasks easier
- 14. Support in acquiring new skills

3. “Here is the second sheet. The aspects of your working environment mentioned are the same as in Sheet 1. However, now you are being asked to what extent your employer really provides you with these aspects.”

read out the question in the box at the top of Sheet 2 (see below)

- 1. Long-term workplace security
- 2. Good career opportunities
- 3. Support in case of personal problems
- 4. Chance to participate in decision processes
- 5. Pieces of information with respect to important decisions
- 6. Wage increases for securing the standard of living
- 7. Fair pay in comparison to the wages that other employers pay to employees with comparable tasks
- 8. Fair pay regarding the assigned tasks
- 9. Provision of an occupational pension scheme that leads to entitlements that are usual in the industry
- 10. State-of-the-art training opportunities
- 11. Training that is necessary for doing the job in a good manner
- 12. Autonomy that is necessary for doing the job in a good manner
- 13. Guidelines and standardised workflows that make the occupational tasks easier
- 14. Support in acquiring new skills

4. "Would you like to comment on these two sheets? For example: Did you experience some incidents (positive or negative) in your relationship with your employer that influenced how you filled in the sheets?"

5. "With special regard to your workplace pension scheme: was this pension scheme an important reason for you to accept the job offer?"

6. "And now? Is the pension scheme an important reason for you to stay with your company?"

7. "In the past, have there been changes regarding your evaluation of your pension scheme? If yes, please describe this change, or changes, and give the reasons for them."

8. "Please assume that Company_Z will make two different offers to you. Please tell me which of the following offers you would prefer:
 - a) additional pay rise;
 - b) an additional employer contribution to your pension scheme which is equal in value to a possible additional pay rise.
 Please give reasons for your choice."

9. "What do you know about your occupational pension scheme?"

for example, vesting period, entitlements, etc.

10. "Please tell me, with your rationale, whether or not you would agree with the following sentences:

a) My employer offers its pension scheme primarily for reasons of care for its employees.

exploring affective/normative commitment, possibly necessary to check back

b) With regard to my pension scheme, my financial losses would be too high if I handed in my notice."

exploring continuance commitment

11. "How attractive is your workplace pension in comparison with other forms of old age provision for you? Which alternatives might be better/worse?

With regard to the occupational pension scheme provided by your employer: What do you especially appreciate? Is there anything that should be changed?"

12. "Do you provide otherwise for old-age?"

Means, standard deviations and correlations

1) Means, standard deviations and correlations for items of the organisational commitment scale and factor-score variables

a) All respondents

	Variable names in SPSS	Mean	Std. Dev.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	nv3 spend rest career	4.787	0.469	1																	
2	nv3_2 too costly	3.072	1.318	.215**	1																
3	nv3_3_re loyalty not imp	3.968	1.081	.217**	.140*	1															
4	nv3_4_not emotional attach	4.260	0.922	.302**	0.100	.389**	1														
5	nv3_5 too much disrupted	3.434	1.136	.195**	.463**	.151**	0.031	1													
6	nv3_6 even advantage	3.013	1.221	.239**	0.112	.322**	.355**	.125*	1												
7	nv3_7 proud	4.278	0.800	.403**	0.094	.305**	.427**	0.098	.446**	1											
8	nv3_8 too few options	2.722	1.295	0.063	.502**	0.064	-0.008	.253**	-0.004	0.033	1										
9	nv3_9 feel of guilty	2.325	1.171	.211**	.149**	.221**	.224**	.216**	.483**	.284**	.141*	1									
10	nv3_10 sense of belonging	4.104	0.889	.435**	0.087	.320**	.580**	0.089	.430**	.660**	0.048	.307**	1								
11	nv3_11 too much effort	2.730	1.152	.179**	.256**	.148*	.145*	.263**	.405**	.229**	.143*	.419**	.304**	1							
12	nv3_12 bad too many changes	3.290	1.173	.125*	.208**	.211**	0.110	0.089	.230**	.249**	.156**	.261**	.194**	.317**	1						
13	nv3_13 moral values	4.435	0.639	.235**	0.010	.232**	.331**	-0.049	.271**	.493**	-0.043	.186**	.458**	.149**	.270**	1					
14	nv3_14 necessity	1.662	0.929	-.256**	0.108	-.154**	-.431**	.114*	-.174**	-.295**	.204**	-0.042	-.359**	0.043	-0.057	-.319**	1				
15	nv3_15 sense of obligation	2.125	1.055	0.028	-0.097	-0.013	0.072	0.035	.204**	.120*	-.137*	.432**	.122*	.199**	.150**	0.062	0.048	1			
16	LV1_AC_u	4.212	0.726	.456**	0.110	.398**	.781**	0.088	.485**	.833**	0.030	.324**	.900**	.273**	.221**	.511**	-.426**	.126*	1		
17	LV2_CC_u	3.188	0.973	.248**	.826**	.176**	0.100	.782**	.189**	.125*	.440**	.270**	.157**	.489**	.222**	0.012	.121*	0.017	.153**	1	
18	LV3_NC_u	3.067	0.873	.297**	.182**	.632**	.418**	.215**	.837**	.458**	0.089	.771**	.471**	.443**	.311**	.303**	-.160**	.288**	.535**	.287**	1

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

b) Pension-scheme group AB

	Variable names in SPSS	Mean	Std. Dev.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	nv3_spend rest career	4.738	0.518	1																	
2	nv3_2 too costly	2.761	1.356	.208**	1																
3	nv3_3_re loyalty not imp	3.963	1.062	.261**	.164*	1															
4	nv3_4_not emotional attach	4.196	0.942	.271**	0.092	.420**	1														
5	nv3_5 too much disrupted	3.356	1.158	.280**	.467**	.231**	0.099	1													
6	nv3_6 even advantage	3.043	1.192	.259**	.171*	.271**	.343**	.224**	1												
7	nv3_7 proud	4.298	0.835	.413**	0.094	.325**	.464**	.201*	.464**	1											
8	nv3_8 too few options	2.445	1.279	0.020	.453**	0.039	0.036	.229**	0.021	-0.034	1										
9	nv3_9 feel of guilty	2.313	1.147	.222**	.247**	.239**	0.131	.275**	.512**	.269**	0.114	1									
10	nv3_10 sense of belonging	4.012	0.900	.481**	0.067	.354**	.585**	0.143	.398**	.705**	0.033	.253**	1								
11	nv3_11 too much effort	2.679	1.172	.195*	.341**	.190*	.157*	.269**	.402**	.186*	.155*	.475**	.272**	1							
12	nv3_12 bad too many changes	3.301	1.128	0.126	.266**	0.153	0.073	0.133	.248**	.200*	.194*	.320**	.214**	.376**	1						
13	nv3_13 moral values	4.433	0.675	.204**	-0.035	.262**	.233**	-0.041	.223**	.410**	-0.075	0.136	.355**	0.098	.256**	1					
14	nv3_14 necessity	1.632	0.902	-0.143	.226**	-0.147	-.350**	.160*	-0.121	-.265**	.210**	0.066	-.288**	0.127	0.021	-.262**	1				
15	nv3_15 sense of obligation	2.205	1.055	0.055	-0.121	0.046	0.043	-0.041	.208**	.211**	-.214**	.424**	0.146	.190*	.199*	0.106	0.056	1			
16	LV1_AC_u	4.168	0.754	.463**	0.097	.426**	.782**	.174*	.469**	.859**	0.013	.259**	.907**	.244**	.195*	.395**	-.349**	.160*	1		
17	LV2_CC_u	2.928	0.918	.300**	.791**	.257**	.156*	.746**	.358**	.212**	.365**	.442**	.217**	.734**	.347**	0.013	.225**	0.020	.230**	1	
18	LV3_NC_u	3.055	0.860	.325**	.259**	.604**	.380**	.320**	.827**	.468**	0.077	.805**	.440**	.483**	.325**	.267**	-0.082	.316**	.505**	.474**	1

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

c) Pension-scheme group C

	Variable names in SPSS	Mean	Std. Dev.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	nv3_spend rest career	4.842	0.402	1																	
2	nv3_2 too costly	3.430	1.181	.176*	1																
3	nv3_3_re loyalty not imp	3.972	1.105	0.162	0.122	1															
4	nv3_4_not emotional attach	4.331	0.898	.338**	0.068	.356**	1														
5	nv3_5 too much disrupted	3.525	1.106	0.049	.453**	0.057	-0.065	1													
6	nv3_6 even advantage	2.979	1.257	.229**	0.063	.375**	.377**	0.016	1												
7	nv3_7 proud	4.255	0.762	.405**	0.123	.282**	.386**	-0.028	.427**	1											
8	nv3_8 too few options	3.042	1.243	0.070	.502**	0.093	-0.102	.265**	-0.018	0.137	1										
9	nv3_9 feel of guilty	2.338	1.202	.200*	0.030	.202*	.333**	0.150	.454**	.304**	.176*	1									
10	nv3_10 sense of belonging	4.208	0.868	.355**	0.053	.285**	.566**	0.006	.478**	.619**	0.010	.370**	1								
11	nv3_11 too much effort	2.789	1.129	0.147	0.131	0.100	0.123	.250**	.412**	.288**	0.111	.357**	.336**	1							
12	nv3_12 bad too many changes	3.278	1.226	0.133	.165*	.270**	0.152	0.042	.211*	.307**	0.127	.203*	.179*	.256**	1						
13	nv3_13 moral values	4.438	0.599	.289**	0.074	.197*	.462**	-0.059	.331**	.608**	-0.006	.249**	.603**	.218**	.290**	1					
14	nv3_14 necessity	1.697	0.960	-.437**	-0.050	-0.161	-.536**	0.055	-.226**	-.331**	.191*	-0.155	-.454**	-0.054	-0.133	-.396**	1				
15	nv3_15 sense of obligation	2.035	1.051	0.013	-0.026	-0.077	0.124	0.139	.196*	0.005	-0.017	.447**	0.118	.218**	0.097	0.009	0.046	1			
16	LV1_AC_u	4.261	0.691	.441**	0.095	.367**	.778**	-0.033	.513**	.808**	0.018	.403**	.892**	.304**	.254**	.674**	-.525**	0.099	1		
17	LV2_CC_u	3.479	0.954	0.132	.849**	0.104	0.001	.857**	0.047	0.054	.446**	0.106	0.035	.224**	0.121	0.008	0.003	0.065	0.036	1	
18	LV3_NC_u	3.080	0.891	.265**	0.092	.660**	.462**	0.093	.849**	.449**	0.101	.735**	.509**	.398**	.297**	.349**	-.242**	.261**	.573**	0.109	1

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

- 1 I would be very happy to spend the rest of my career with Company_Z.
- 2 It would be too costly for me to leave my employer, Company_Z, now.
- 3 I do not attach much importance to remaining loyal to an employer.
- 4 I do not feel "emotionally attached" to Company_Z.
- 5 Too much of my life would be disrupted f I decided I wanted to leave my employer, Company_Z, now.
- 6 Even if it were to my advantage, I do not feel it would be right to leave Company_Z, now.
- 7 I am proud of belonging to Company_Z.
- 8 I believe that I have too few options to consider leaving Company_Z at the moment.

- 9 I would feel guilty if I left Company_Z, now
- 10 I feel a string sense of "belonging" to Company_Z now
- 11 I have already put too much of myself into Company_Z to consider working elsewhere.
- 12 Changing the employer often, does not make a good impression.
- 13 I think that my moral values fit in with those of Company_Z
- 14 Right now, staying with Company_Z is a matter of necessity as much as desire.
- 15 I would not leave Company_Z right now because I have sene of obligation to the people in it.
- 16 to 18 factor score variables for the three dimensions of organisational commitment

2) Means, standard deviations and correlations for satisfaction variables and factor-score variables

a) All respondents

	Variable names in SPSS	Mean	Std. Dev.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	n2_image	4.560	0.587	1															
2	n2_2 compensation	3.755	0.815	.210**	1														
3	nv2_3 variable comp	3.635	0.865	.223**	.600**	1													
4	nv2_4 pension scheme	4.149	0.847	.250**	.330**	.332**	1												
5	nv2_5 work content	4.147	0.780	.205**	.174**	.217**	0.040	1											
6	nv2_6 leeway	4.023	0.917	.158**	.164**	.201**	.142*	.601**	1										
7	nv2_7 career opportunities	3.595	1.023	.190**	.166**	.174**	.116*	.403**	.421**	1									
8	nv2_8 relation colleagues	4.424	0.706	.208**	0.097	.123*	0.013	.256**	.289**	.286**	1								
9	nv2_9 relation superior	4.262	0.845	.208**	.138*	.179**	0.060	.429**	.332**	.360**	.522**	1							
10	nv2_10 working atmosphere	4.369	0.760	.321**	.196**	.250**	0.108	.372**	.391**	.294**	.523**	.523**	1						
11	nv2_11 workplace security	4.751	0.476	.279**	.178**	0.097	.116*	.222**	.154**	.211**	.201**	.145*	.247**	1					
12	nv2_12 work-life-balance	3.951	0.948	.162**	.129*	0.113	0.100	.272**	.334**	.386**	.361**	.226**	.271**	.237**	1				
13	nv2_13 entire situation	4.208	0.695	.337**	.318**	.310**	.156**	.485**	.430**	.336**	.437**	.455**	.499**	.289**	.462**	1			
14	LV1_AC_u	4.212	0.726	.393**	.315**	.287**	.236**	.356**	.328**	.267**	.218**	.288**	.310**	.268**	.201**	.470**	1		
15	LV2_CC_u	3.188	0.973	0.082	.303**	.188**	.303**	-0.035	0.045	.169**	-0.032	-0.006	-0.037	-0.023	0.055	0.039	.153**	1	
16	LV3_NC_u	3.067	0.873	.232**	.196**	.224**	.151**	.235**	.198**	.225**	.132*	.268**	.209**	0.110	.157**	.299**	.535**	.287**	1

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

b) Pension-scheme group AB

	Variable names in SPSS	Mean	Std. Dev.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	n2_image	4.558	0.589	1															
2	n2_2 compensation	3.659	0.832	0.147	1														
3	nv2_3 variable comp	3.583	0.874	.183*	.531**	1													
4	nv2_4 pension scheme	3.799	0.866	.295**	.330**	.449**	1												
5	nv2_5 work content	4.259	0.683	.194*	0.044	0.126	0.116	1											
6	nv2_6 leeway	4.134	0.855	.192*	0.117	.172*	.227**	.472**	1										
7	nv2_7 career opportunities	3.707	0.997	.219**	.160*	.155*	.216**	.357**	.306**	1									
8	nv2_8 relation colleagues	4.515	0.642	.196*	-0.025	0.009	0.066	.189*	.182*	.308**	1								
9	nv2_9 relation superior	4.298	0.835	.234**	0.100	.182*	.160*	.373**	.223**	.377**	.478**	1							
10	nv2_10 working atmosphere	4.396	0.732	.378**	0.093	.200*	.156*	.240**	.336**	.295**	.499**	.406**	1						
11	nv2_11 workplace security	4.744	0.491	.265**	0.085	-0.007	0.109	.234**	.156*	.222**	.189*	0.114	.233**	1					
12	nv2_12 work-life-balance	4.099	0.914	0.146	.158*	0.106	.196*	.354**	.324**	.353**	.278**	.210**	.262**	.244**	1				
13	nv2_13 entire situation	4.311	0.673	.396**	.289**	.268**	.255**	.383**	.328**	.316**	.269**	.397**	.452**	.278**	.475**	1			
14	LV1_AC_u	4.168	0.754	.429**	.204**	.178*	.304**	.319**	.307**	.318**	0.130	.308**	.257**	.264**	.220**	.454**	1		
15	LV2_CC_u	2.928	0.918	0.054	.334**	.230**	.256**	0.041	0.075	.228**	-0.029	0.119	0.000	-0.077	0.065	.160*	.230**	1	
16	LV3_NC_u	3.055	0.860	.271**	.237**	.192*	.244**	.154*	0.123	.294**	0.095	.260**	.231**	0.084	.238**	.332**	.505**	.474**	1

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

c) Pension-scheme group C

	Variable names in SPSS	Mean	Std. Dev.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	n2_image	4.562	0.587	1															
2	n2_2 compensation	3.863	0.785	.288**	1														
3	nv2_3 variable comp	3.695	0.853	.271**	.682**	1													
4	nv2_4 pension scheme	4.545	0.623	.263**	.275**	.168*	1												
5	nv2_5 work content	4.021	0.862	.224**	.342**	.332**	0.134	1											
6	nv2_6 leeway	3.897	0.970	0.128	.254**	.256**	.233**	.686**	1										
7	nv2_7 career opportunities	3.464	1.042	0.161	.212*	.212*	0.155	.425**	.521**	1									
8	nv2_8 relation colleagues	4.322	0.761	.226**	.259**	.259**	0.108	.278**	.355**	.246**	1								
9	nv2_9 relation superior	4.222	0.856	.181*	.198*	.183*	-0.012	.480**	.433**	.337**	.564**	1							
10	nv2_10 working atmosphere	4.338	0.793	.263**	.326**	.312**	0.119	.481**	.440**	.288**	.546**	.642**	1						
11	nv2_11 workplace security	4.759	0.461	.296**	.296**	.228**	0.147	.223**	0.161	.204*	.224**	.186*	.265**	1					
12	nv2_12 work-life-balance	3.782	0.961	.184*	0.148	0.147	.206*	.168*	.314**	.398**	.409**	.231**	.274**	.239**	1				
13	nv2_13 entire situation	4.092	0.704	.285**	.408**	.386**	.258**	.548**	.504**	.329**	.564**	.510**	.546**	.310**	.418**	1			
14	LV1_AC_u	4.261	0.691	.351**	.448**	.422**	0.111	.429**	.378**	.232**	.335**	.273**	.379**	.272**	.205*	.524**	1		
15	LV2_CC_u	3.479	0.954	0.117	.220**	0.117	0.144	-0.020	0.097	.197*	0.041	-0.112	-0.054	0.028	0.157	0.015	0.036	1	
16	LV3_NC_u	3.080	0.891	.191*	0.148	.262**	0.041	.318**	.277**	0.159	.173*	.278**	.189*	0.139	0.080	.274**	.573**	0.109	1

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

3) Means, standard deviations and correlations for control variables and further variables

a) All respondents

	Variable names in SPSS	Mean	Std. Dev.	1	2	3	4	5	6	7	8	9	10
1	nv2_4 pension scheme	4.15	0.85	1									
2	nv4_7 pension reason to stay	2.87	1.21	.375**	1								
3	n2_2 compensation	3.75	0.82	.330**	.129*	1							
4	nv10U10_salary	6.12	1.76	-0.034	0.045	-0.009	1						
5	nv_tenure years	9.61	4.42	.254**	.266**	0.046	.271**	1					
6	nv_age	40.48	7.86	.156**	0.111	0.086	.336**	.439**	1				
7	nv3_16 staying next 2 years	4.82	0.53	.204**	.131*	.200**	-0.033	0.068	.126*	1			
8	LV1_AC_u	4.21	0.73	.236**	.151**	.315**	0.010	0.062	0.017	.346**	1		
9	LV2_CC_u	3.19	0.97	.303**	.248**	.303**	-.139*	.336**	.136*	.192**	.153**	1	
10	LV3_NC_u	3.07	0.87	.151**	.140*	.196**	-0.052	0.040	0.045	.200**	.535**	.287**	1

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

b) Pension-scheme group AB

	Variable names in SPSS	Mean	Std. Dev.	1	2	3	4	5	6	7	8	9	10
1	nv2_4 pension scheme	3.80	0.87	1									
2	nv4_7 pension reason to stay	2.47	1.12	.370**	1								
3	n2_2 compensation	3.66	0.83	.330**	.160*	1							
4	nv10U10_salary	5.73	1.60	-.240**	-0.054	-0.017	1						
5	nv_tenure years	6.58	4.09	-0.116	0.023	-0.080	.220**	1					
6	nv_age	37.16	7.53	-0.093	-0.131	0.064	.264**	.221**	1				
7	nv3_16 staying next 2 years	4.79	0.58	.209**	0.132	0.104	-0.001	0.052	0.110	1			
8	LV1_AC_u	4.17	0.75	.304**	.225**	.204**	0.007	0.044	0.021	.318**	1		
9	LV2_CC_u	2.93	0.92	.256**	.221**	.334**	-.172*	.251**	0.008	.185*	.230**	1	
10	LV3_NC_u	3.05	0.86	.244**	0.151	.237**	-0.141	0.055	-0.011	.198*	.505**	.474**	1

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

c) Pension-scheme group C

	Variable names in SPSS	Mean	Std. Dev.	1	2	3	4	5	6	7	8	9	10
1	nv2_4 pension scheme	4.54	0.62	1									
2	nv4_7 pension reason to stay	3.32	1.14	0.103	1								
3	n2_2 compensation	3.86	0.78	.275**	0.013	1							
4	nv10U10_salary	6.57	1.83	-0.057	-0.032	-0.061	1						
5	nv_tenure years	13.01	0.88	-0.120	-0.016	-0.058	0.006	1					
6	nv_age	44.24	6.42	0.006	0.033	-0.010	.270**	0.099	1				
7	nv3_16 staying next 2 years	4.85	0.46	.182*	0.099	.334**	-0.111	-0.032	0.117	1			
8	LV1_AC_u	4.26	0.69	0.111	0.035	.448**	-0.020	-0.071	-0.070	.386**	1		
9	LV2_CC_u	3.48	0.95	0.144	0.106	.220**	-.269**	0.159	0.018	.186*	0.036	1	
10	LV3_NC_u	3.08	0.89	0.041	0.141	0.148	0.019	0.029	0.112	.206*	.573**	0.109	1

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

- 1** Satisfaction with the organisational pension scheme (5-point Likert scale; higher values mean higher satisfaction levels)
- 2** Occupational pension scheme as a reason for staying (5-point Likert scale; higher values mean higher agreement levels)
- 3** Satisfaction with the total amount of compensation components (5-point Likert scale; higher values mean higher satisfaction levels)
- 4** Control variable: salary of the respondent (ordinal-scaled variable)
- 5** Control variable: tenure of the respondent (in years)
- 6** Control variable: age of the respondent (in years)
- 7** If nothing extraordinarily happens, I will definitely be working for Company_Z in two years' time.
- 8 to 10** factor score variables for the three dimensions of organisational commitment

Details of the factor analyses

Verifying the criterion of Fornell and Larcker for discriminant validity (Fornell and Larcker:1981)

a) Group AB

	Affective	Continuance	Normative
Affective	0.850		
Continuance	0.230	0.748	
Normative	0.505	0.474	0.751

without items 1, 8, 12, 13, 14 and 15

Diagonal: Square root of AVE; other cells: correlations

b) Group C

	Affective	Continuance	Normative
Affective	0.826		
Continuance	0.036	0.849	
Normative	0.573	0.109	0.749

without items 1, 8, 11, 12, 13, 14 and 15

Diagonal: Square root of AVE; other cells: correlations

Table of correlations between factors

a) Group AB:

		LV1_AC_u	LV2_CC_u	LV3_NC_u
LV1_AC_u	Pearson			
	Correlation	1	.230**	.505**
	Sig. (2-tailed)		.003	.000
	N	164	164	164
LV2_CC_u	Pearson			
	Correlation	.230**	1	.474**
	Sig. (2-tailed)	.003		.000
	N	164	164	164
LV3_NC_u	Pearson			
	Correlation	.505**	.474**	1
	Sig. (2-tailed)	.000	.000	
	N	164	164	164

** . Correlation is significant at the 0.01 level (2-tailed).

b) Group C:

		LV1_AC_u	LV2_CC_u	LV3_NC_u
LV1_AC_u	Pearson			
	Correlation	1	.036	.573**
	Sig. (2-tailed)		.663	.000
	N	146	146	146
LV2_CC_u	Pearson			
	Correlation	.036	1	.109
	Sig. (2-tailed)	.663		.191
	N	146	146	146
LV3_NC_u	Pearson			
	Correlation	.573**	.109	1
	Sig. (2-tailed)	.000	.191	
	N	146	146	146

** . Correlation is significant at the 0.01 level (2-tailed).

Interpretation of levels of the correlation coefficient r

Levels of the correlation coefficient r	Interpretation
0 < r ≤ 0.2	very low correlation
0.2 < r ≤ 0.5	low correlation
0.5 < r ≤ 0.7	medium correlation
0.7 < r ≤ 0.9	high correlation
0.8 < r ≤ 1	very high correlation

(Bühl, 2010: 297, translated from German by the researcher)

Details of the predictor variables of the regression analyses

Part A: Details about the scale of measurement of the predictor variables described on page 129

Variables (1) to (12) are Likert-scaled variables. In the academic literature, there is discussion as to whether or not this level of measurement fulfils the statistical requirements for conducting a regression analysis. According to Urban and Mayerl (2011: p. 275) Likert-scaled variables can be treated as metric-scaled variables under the following minimum conditions: “1.) the variables have at least five values or categories (the more categories the better), 2.) the answer categories are ordered respectively and have an ordinal scale level, 3) the distances between the categories can be interpreted as being equal (in their semantic meaning and by the attribution of numbers), 4.) the categories can be interpreted as value intervals of continuous latent variables” [ANNOTATION: TRANSLATION FROM GERMAN BY AUTHOR OF THIS THESIS]. For variables (1) to (17) these conditions are met.

The nominal variable sex (13) is dummy-coded, using SPSS syntax as illustrated by Urban and Mayerl (2011). Thus, this variable can only take a value of ‘1’ or ‘0’. Due to this transformation, this variable can be treated statistically as being interval-scaled (Bühl, 2010). Variable (14) is ordinal scaled and fulfils the minimum requirements defined by Urban and Mayerl (2011, see above). Variables (15) and (16) are ratio scaled (age and organisational tenure measured in years).

Cases with missing values were excluded listwise.

Effect sizes and statistical power for the regression analyses

Statistical power is the probability of rejecting a false null hypothesis (Cohen 1992). Calculating power requires that the effect size is known.

According to Cohen (1988) and Green (1991) effect size for an regression analysis is calculated by the following formula:

$$\text{effect size} = f^2 = R^2 / (1-R^2)$$

The respective values for R^2 are 0.308 (AC), 0.330 (CC) and 0.243 (NC) for group AB and 0.398 (AC), 0.224 (CC) and 0.210 (NC) for group C. They were computed via SPSS. Thus, the values for effect size for the three regression analyses are:

Group AB:

- **CFA_LV1_AC as dependent variable:** $f^2 = 0.308/(1-0.308) = 0.445$
- **CFA_LV2_CC as dependent variable:** $f^2 = 0.330/(1-0.330) = 0.493$
- **CFA_LV3_NC as dependent variable:** $f^2 = 0.243/(1-0.243) = 0.321$

Group C:

- **CFA_LV1_AC as dependent variable:** $f^2 = 0.398/(1-0.398) = 0.661$
- **CFA_LV2_CC as dependent variable:** $f^2 = 0.224/(1-0.224) = 0.289$
- **CFA_LV3_NC as dependent variable:** $f^2 = 0.210/(1-0.210) = 0.266$

According to the conventions (Cohen, 1988; f^2 of 0.02, 0.15 and 0.35) the above values for effect size are moderate to large.

When the values for effect size, α ($=0.05$), the number of predictors ($= 16$) and the sample size ($= 152$ for group AB and 130 for group C) are given, power can be calculated. This is done by using G*power as recommended, for example, by Bühner and Ziegler (2017) and Hair et al. (2017). This software can be downloaded free of charge: <http://www.gpower.hhu.de/>.

A hardcopy of the calculation of power for the lowest effect size of the three regression analyses (regression analysis with CFA_LV3_NC as dependent variable for group C) is exemplary depicted below:

Central and noncentral distributions Protocol of power analyses

[3] -- Tuesday, March 12, 2019 -- 23:43:50

F tests – Linear multiple regression: Fixed model, R² deviation from zero

Analysis: Post hoc: Compute achieved power

Input:

Effect size f ²	=	0.266
α err prob	=	0.05
Total sample size	=	130
Number of predictors	=	16

Output:

Noncentrality parameter λ	=	34.5800000
Critical F	=	1.7337781
Numerator df	=	16
Denominator df	=	113
Power (1-β err prob)	=	0.9672385

Clear Save Print

Test family: F tests Statistical test: Linear multiple regression: Fixed model, R² deviation from zero

Type of power analysis: Post hoc: Compute achieved power – given α, sample size, and effect size

Input Parameters

Determine => Effect size f²: 0.266 α err prob: 0.05 Total sample size: 130 Number of predictors: 16

Output Parameters

Noncentrality parameter λ	34.5800000
Critical F	1.7337781
Numerator df	16
Denominator df	113
Power (1-β err prob)	0.9672385

Effect size is 0.266, α as a default is 0.05, the total usable sample 130 cases and the number of predictors is 16. The resulting value for power is 0.9672385. Cohen (1988) recommends to reach at least a level of 0.80. This criterion is fulfilled. This criterion is also fulfilled for all other regression analyses.

The high power values show that the sample size could have been lower.

G*Power can not only be used post hoc for calculating power but also a priori in order to determine the sample size for reaching at least power of 0.80. For example, the minimum sample size for the regression analysis with CFA_LV3_NC as dependent variable for group C would have been 87 usable cases (see below).

Central and noncentral distributions
Protocol of power analyses

[5] -- Tuesday, March 12, 2019 -- 23:46:23

F tests – Linear multiple regression: Fixed model, R² deviation from zero

Analysis: A priori: Compute required sample size

Input:

Effect size f ²	=	0.266
α err prob	=	0.05
Power (1-β err prob)	=	0.80
Number of predictors	=	16

Output:

Noncentrality parameter λ	=	23.1420000
Critical F	=	1.7901651
Numerator df	=	16
Denominator df	=	70
Total sample size	=	87
Actual power	=	0.8041769

Clear
Save
Print

Test family
Statistical test

F tests
Linear multiple regression: Fixed model, R² deviation from zero

Type of power analysis

A priori: Compute required sample size – given α, power, and effect size

Input Parameters
Output Parameters

Determine =>

Effect size f ²	0.266
α err prob	0.05
Power (1-β err prob)	0.80
Number of predictors	16

Noncentrality parameter λ	23.1420000
Critical F	1.7901651
Numerator df	16
Denominator df	70
Total sample size	87
Actual power	0.8041769

The usage of G*Power renders the usage of rules of thumb for determining a sufficient sample size unnecessary.

Checking assumptions for the regression analyses

Part A: Directionality of the analysis

(here: academic debate about the causal relationship between job satisfaction and organisational commitment)

In the following, a brief summary of the four “competing models” (Vandenberg and Lance 1992: 154), with respect to the causal relationship between job satisfaction (JS) and organisational commitment (OS), is given. This brief overview of the academic debate supports the contention that the approach chosen for this thesis (job satisfaction antecedes organisational commitment) is considered a reasonable standard in the case that no longitudinal studies or experiments can be carried out.

a) Vandenberg and Lance acknowledge that the first of these four models, which assumes that job satisfaction antecedes organisational commitment, is the “most widely accepted” (Vandenberg and Lance 1992: 154). Among the authors who are proponents of this causal order, or at least of this direction of influence, are Meyer and Allen (1987) in an early paper (longitudinal study, using the Organizational Commitment Questionnaire of Mowday et al. 1979), Williams and Hazer (1986), Brown and Peterson (1993), Gaertner (1999), Clugston (2000), Boles et al. (2007) and, to some extent (this restriction will be explained below), Markovits et al. (2010). An important reason for arguing that job satisfaction is a precursor of organisational commitment is rooted in the view that “JS is determined by only a subset of personal and organizational factors (e.g., job and job facets) that determine OC” (Vandenberg and Lance 1992: 154). Another reason is seen in the view that organisational commitment develops more slowly during the employment relationship than does job satisfaction and that it is more stable over time. This time-related difference between job satisfaction and organisational commitment is advocated, for example, by Porter et al. (1974), Mowday and Steers (1979) and Mowday et al. (1982). A third reason in favour of this first model can be found in exchanges between the employee and the organisation. For example, if employees experience that their needs are satisfied, it is likely that their commitment to the organisation increases (Steers 1977).

b) The proponents of the second model assume that organisational commitment antecedes job satisfaction. Thus, this second model is the reverse of the first model.

The rationale lying behind it is the view that “Commitment initiates a rationalizing process through which individuals ‘make sense’ of their current situation by developing attitudes that are consistent with their commitment” (Bateman and Strasser 1984: 97). Huang and Hsiao (2007) point out that advocates of this model refer to the theory of cognitive dissonance in that individuals try to reduce cognitive dissonance by aligning their satisfaction levels in such a manner that these fit in with their individual commitment levels. Researchers whose analyses supported the second model are Bateman and Strasser (1984) and Wong et al. (1995).

c) The third model is based on the assumption that the relationship between job satisfaction and organisational commitment is a reciprocal one. Markovits et al. (2010: 178) summarise this view as follows: “A satisfied and happy employee tends to be committed to the organization, returning back to the organization this positive effect via commitment and the concomitant organizationally relevant outcomes”. Supporters of this model are Mathieu (1991) and Huang and Hsiao (2007). Farkas and Tetrick (1989) also reported a bi-directional relationship, but one which changes directions over time.

d) The fourth model assumes that job satisfaction is not an antecedent of organisational commitment and that organisational commitment is not an antecedent of job satisfaction, either. Existing correlations between these two constructs are ascribed to shared common antecedents (Huang and Hsiao 2007). Curry et al. (1986) tried to replicate the research approach of Bateman and Strasser (1984) because they considered their “finding that organisational commitment is causally antecedent to satisfaction [...] troubling, because it contradicts a widely held assumption with empirical support” (Curry et al. 1986: 848). However, their own research results indicated that there is no causal relationship between job satisfaction and organisational commitment at all (neither in one direction nor in the other one).

It would be beyond the scope of this thesis to discuss the differences between the methodology of the various studies instanced above and the impact of these differences on the diverging findings. (For instance, in some studies, the relationship between job satisfaction and organisational commitment was analysed within the framework of a turnover model, whereas in other studies this was not the case. Also, some studies were designed as longitudinal studies, whereas other studies were cross-sectional.) However, the aim of presenting the four models and the divergent research findings is to illustrate that – even over the last three decades – no single right answer, with respect to the nature of the relationship between job satisfaction

and organisational commitment, has emerged. The only common denominator is that the measurement of causality requires a longitudinal approach. But even if a longitudinal approach is used, the results cannot be interpreted as proofs of causality. Meyer and Allen (1987), for example, who used structural regression models in a longitudinal study, emphasised that they used the term “influence” merely for reasons of simplification and that this could not be equated with “causality”. Nevertheless, they are convinced that their analyses “provide greater confidence in causal inference than do correlation coefficients obtained within or across occasions of measurement” (Meyer and Allen 1987: 205). Other researchers, such as Markovits et al. (2010), mentioned, as a limitation of their research approach, that it was not longitudinal. In their cross-sectional study, Markovits et al. (2010) used hierarchical regression analyses with affective, respectively normative commitment as a dependent variable and extrinsic, respectively intrinsic, satisfaction as an independent variable (among others), but not additionally the reverse, although they advocated such a reciprocal relationship. Nevertheless, they believe that their research finding – satisfaction predicts commitment – has its place in the academic debate.

Part B: Mathematical assumptions

(as addressed on page 140)

First, the predictors should not have variances of 0. This assumption is met (see table below for all predictor variables with interval scales used in the regression analysis).

Independent variable	Group AB			Group C		
	Mean	Std. Deviation	N	Mean	Std. Deviation	N
nv2 image	4.592	0.556	152	4.569	0.596	130
nv2_2 compensation	3.664	0.829	152	3.862	0.795	130
nv2_3 variable comp	3.592	0.887	152	3.662	0.850	130
nv2_5 work content	4.263	0.688	152	4.031	0.862	130
nv2_6 leeway	4.151	0.852	152	3.908	0.968	130
nv2_7 career opportunities	3.750	0.971	152	3.485	1.029	130
nv2_8 relation colleagues	4.526	0.630	152	4.354	0.756	130
nv2_9 relation superior	4.296	0.837	152	4.223	0.856	130
nv2_10 working atmosphere	4.421	0.705	152	4.362	0.788	130
nv2_11 workplace security	4.770	0.453	152	4.754	0.467	130
nv2_12 work-life-balance	4.138	0.854	152	3.808	0.941	130
nv2_4 pension scheme	3.816	0.880	152	4.554	0.623	130
nv_age	37.09	7.476	152	44.10	6.126	130
nv_tenure years	6.43	4.106	152	12.98	.902	130

Second, the predictors should not perfectly correlate (no perfect multicollinearity): This is assessed via the measure “variance inflation factor” (VIF). The VIF-values should not be higher than 10 (Bühner and Ziegler 2017) and the average of the VIF-values should not be much higher than 1. In none of the three regression analyses does a VIF-value exceed the value 10 (in fact, the highest VIF-value of all six regression analyses is 3.048). The average VIF-values also comply with the standard: Ø VIF for group AB = 1.475 and for group C = 1.830.

The values for “tolerance” which is merely the inverse of the VIF-measure, also meet the requirements: as a rule of thumb, these values should not be smaller than 0.1 (Bühner and Ziegler 2017). [The VIF-values and the values for “tolerance” are not depicted in the appendices.]

Third, the variance of the residual terms should be the same for every level of the predictor variables (= homoscedasticity). This requirement can be tested by plotting a graph with “regression standardised predicted values” on the x-axis and “regression standardised residuals” on the y-axis. If the plot shows that the data points are scattered randomly and equally, then one can assume that the assumptions of

linearity and homoscedasticity are met. This can be confirmed (see figures below in this appendix: the third figure for each of the three regression analyses).

Fourth, the residuals should not be correlated (= no autocorrelation). The relevant test statistic is the Durbin-Watson-test, which can take values between 0 and 4. Results which are close to '2' indicate that autocorrelation is not given. The values of the Durbin-Watson-test statistic are as follows a) regression with affective commitment as dependent variable: 2.099 for group AB and 2.173 for group C, b) regression with continuance commitment as dependent variable: 1.902 for group AB and 1.743 for group, c) regression with normative commitment as dependent variable: 2.026 for group AB and 1.913 for group C

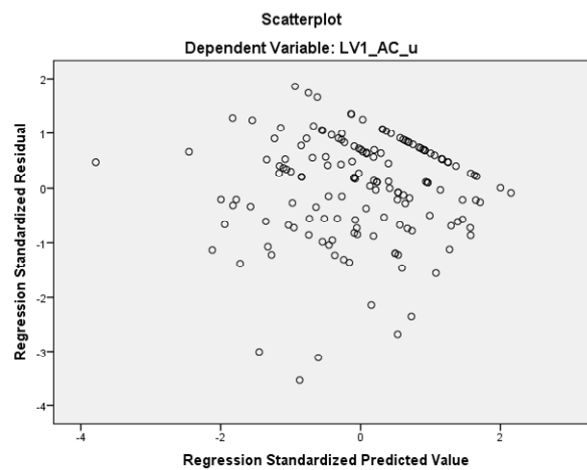
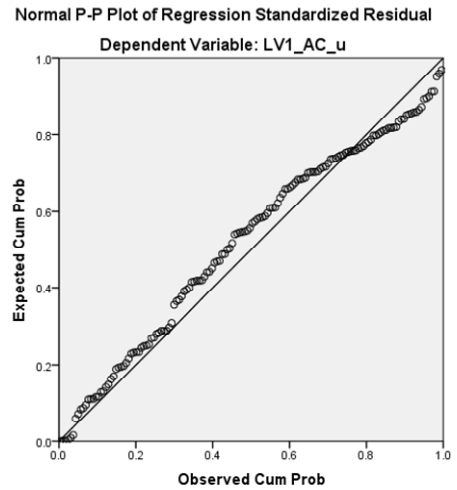
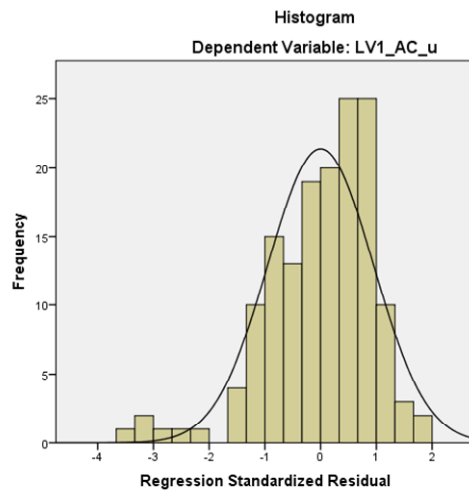
Fifth, the residuals should be normally distributed. This requirement can be checked by plotting two graphs. a) Histogram: "regression standardised residuals" on the x-axis and frequencies of the dependent variable on the y-axis. The histogram should have the form of a normal distribution. This can be confirmed (see the first of the three following figures for each dependent variable). b) Normal probability plot of the residuals: These plots should show a straight line. This is the case (see below: the second figure for each dependent variable).

After having checked that the assumptions for each single regression analysis it is also confirmed that the three dependent variables of the three sets regression analyses are only to a low to medium extent correlated (see Appendix 13). The correlations between AC and CC (0.036) and between NC and CC (0.109) are very low. The correlation between AC and NC (0.573) is medium according to the table provided by Bühl (2010, p. 297; this table is depicted in Appendix 13 as well). In case of higher correlations it would have been recommendable to conduct a MANOVA (= multivariate analysis of variance) or a MANCOVA (= multivariate analysis of covariance) and, thus, to use the three variables with the factor scores for the three dimensions of organisational commitment simultaneously as dependent variables (Döring and Bortz 2016, Field 2018).

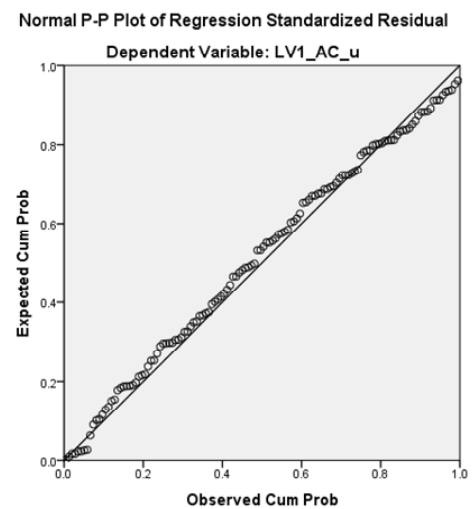
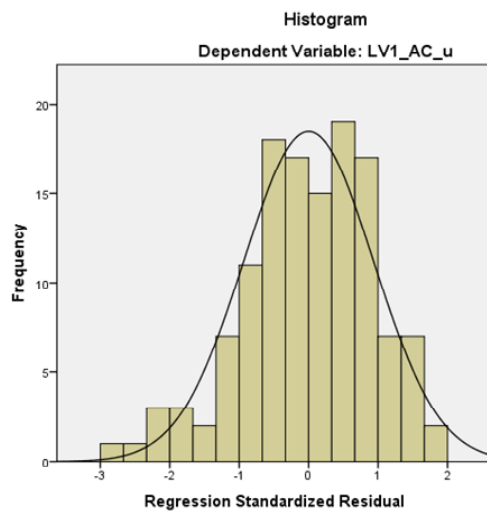
Plots for the assessments whether or not further assumptions are met:

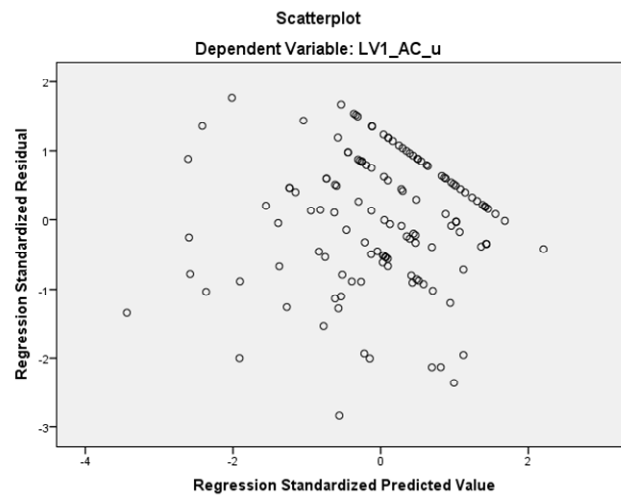
1) Regression with affective commitment as dependent variable

a) Group AB



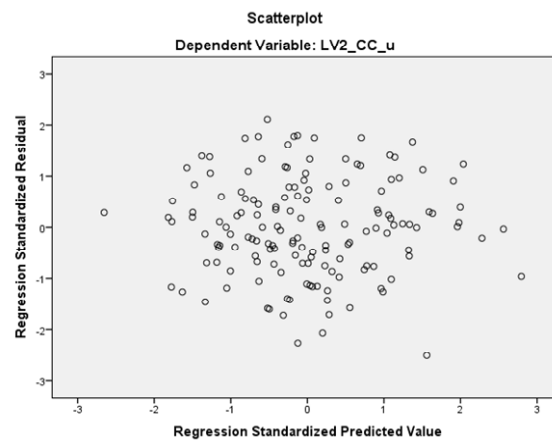
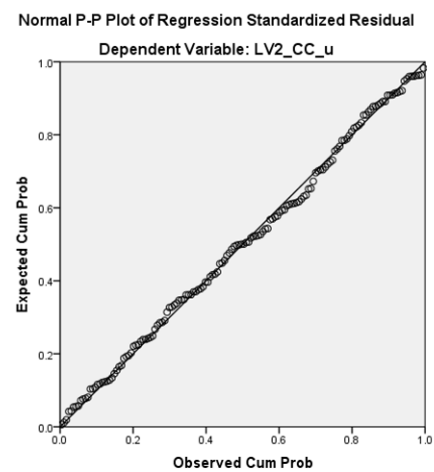
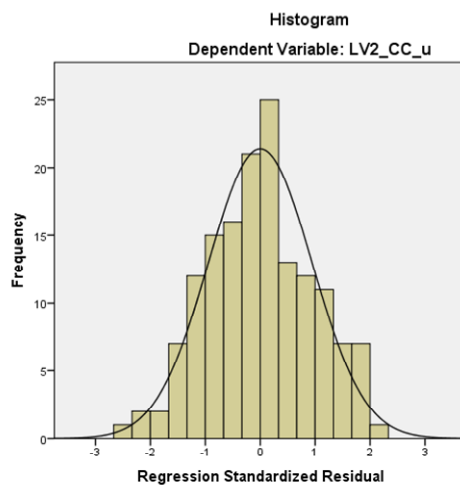
b) Group C



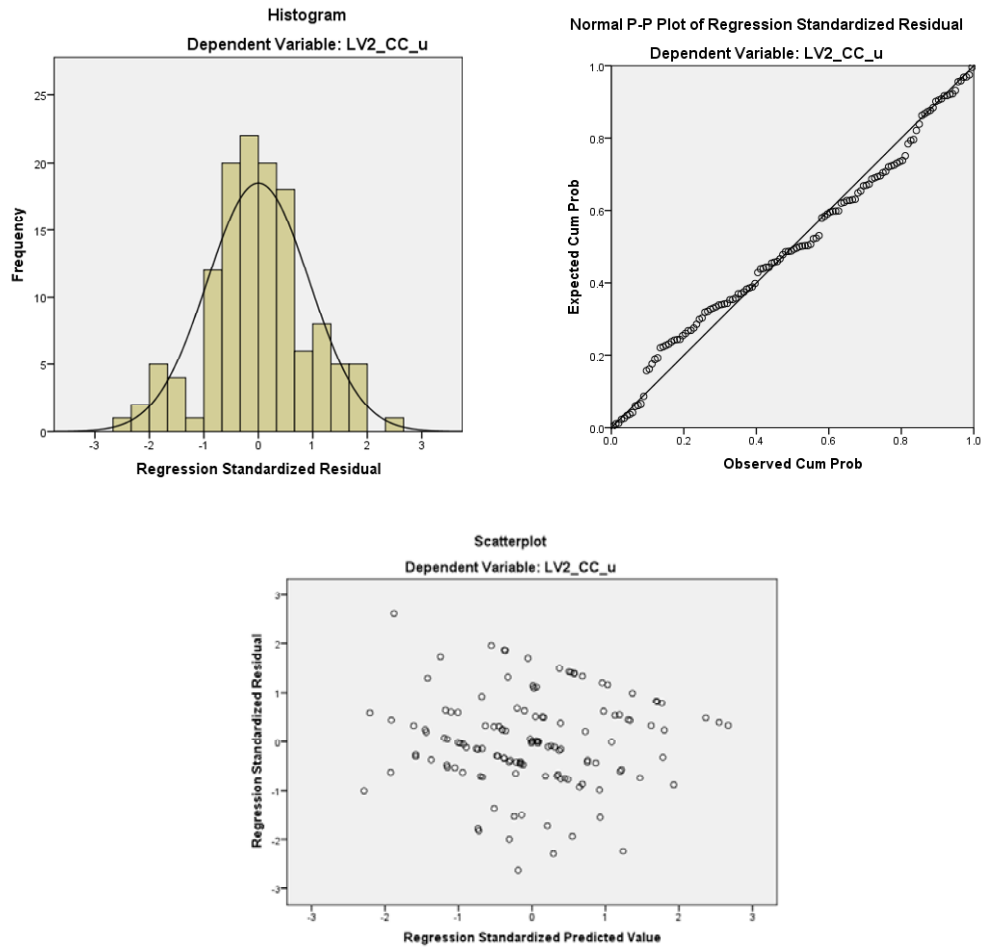


2) Regression with continuance commitment as dependent variable

a) Group AB

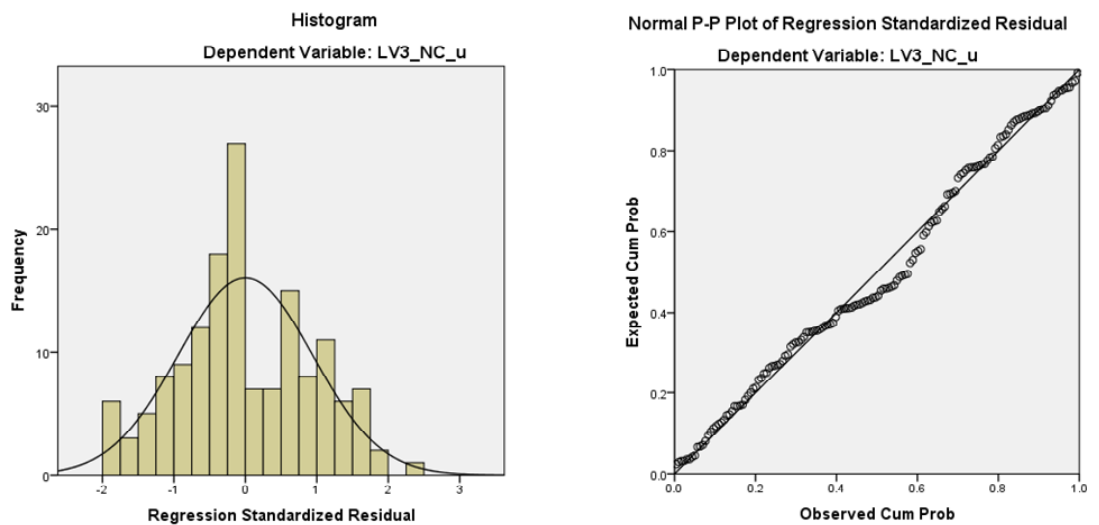


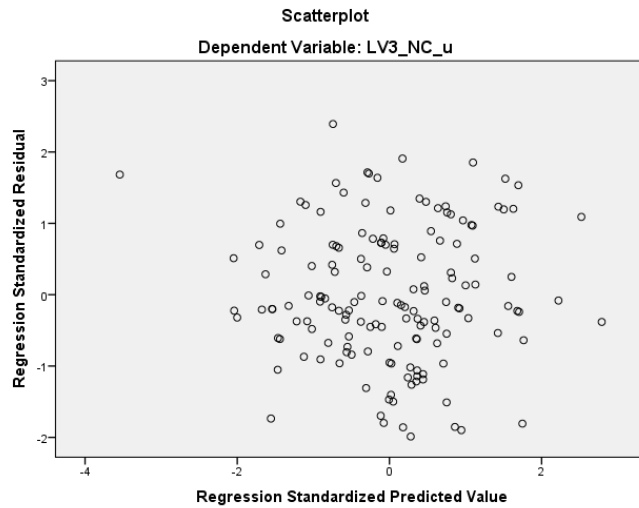
b) Group C



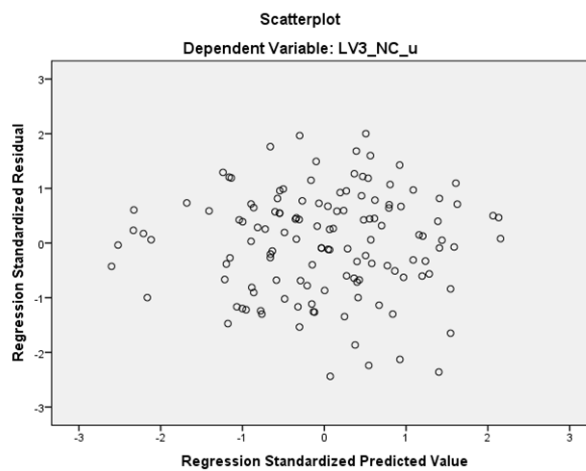
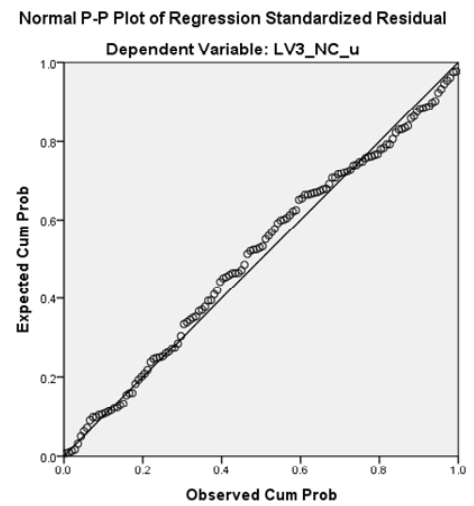
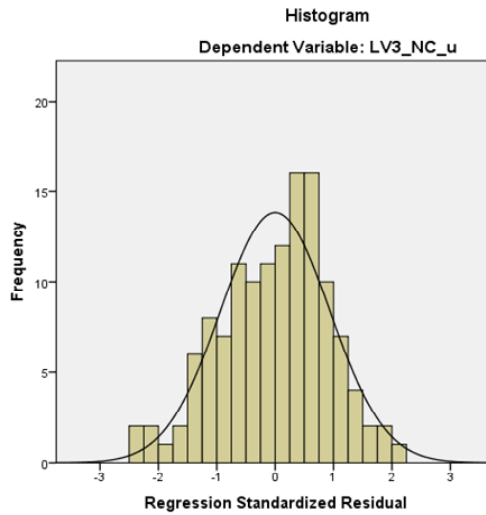
3) Regression with normative commitment as dependent variable

a) Group AB





b) Group C



Final code structure and relation of codes to research questions
(in bold: predefined codes)

Code Structure	Relating to research question...
1_attracting attractive occ. pension attractive employer attracting general CITY_1	RQ_1
2_staying staying occ. pension career development corporate culture family job tenure other job offers positive assessments staying general/commitment turnover intentions work place security	RQ_2/RQ_3 RQ_2
3_psychological contract psyc relevance ops psyc fulfillment psyc pledge	RQ_5 RQ_5 RQ_5
4_Company_Z's activities Company_Z's activities ops human resources	RQ_1/RQ_3/RQ_5
5_Characterising of Company_Z duty of care feedback workload	RQ_5
6_Characteristics of interviewees age gender financial resources managerial responsibility qualification training work attitude	RQ_4 RQ_4
7_old-age provision occupational pension communication ops comparison details occ_pension knowledge occ_pension trust occ_pension versions opting out former experiences old age prov. knowledge old age prov life insurance other alternatives pension gap property riester search of information state pension	RQ_3
8_salary other benefits performance-related pay salary beginning salary comparison salary development salary versus occ_pension	RQ_4

Summary of interview details

a) Female interviewees

Inter-viewee	Reasons for choosing Company_Z	Reasons for staying	Pay rise vs. add. pension	Pension scheme: duty of care?	Psychological contract		
					pledge	in reality	diff.
Ms1_04	<ul style="list-style-type: none"> ▪ <i>occupational pension scheme?</i> - ▪ Company_Z is located in CITY_1 + ▪ Company_Z: one of the ten most attractive employers in CITY_1 + 	<ul style="list-style-type: none"> ▪ <i>occupational pension scheme?</i> - 	add. pension	1. financial interest of Company_Z 2. retention	4	4	0
Ms3_04	<ul style="list-style-type: none"> ▪ <i>occupational pension scheme?</i> - ▪ wish to get a permanent employment contract + 	<ul style="list-style-type: none"> ▪ <i>occupational pension scheme?</i> + 	add. pension	duty of care	1	5	4
Ms4_79	<ul style="list-style-type: none"> ▪ <i>occupational pension scheme?</i> - ▪ flexible, family-friendly working hours ▪ wish to get a permanent employment contract 	<ul style="list-style-type: none"> ▪ <i>occupational pension scheme?</i> (-) ▪ good working conditions + 	add. pension	duty of care	./.	./.	
Ms7_79	<ul style="list-style-type: none"> ▪ <i>occupational pension scheme?</i> - ▪ (but for younger generations +) 	<ul style="list-style-type: none"> ▪ <i>occupational pension scheme?</i> ? ▪ satisfaction with overall situation + 	add. pension	predominantly: care of duty but also own interest	5	5	0

continued overleaf

Inter- viewee	Reasons for choosing Company_Z	Reasons for staying	Pay rise vs. add. pension	Pension scheme: duty of care?	Psychological contract		
					pledge	in reality	diff.
Ms10_59	<ul style="list-style-type: none"> ▪ <i>occupational pension scheme?</i> - 	<ul style="list-style-type: none"> ▪ <i>occupational pension scheme?</i> - ▪ being involved in interesting projects + ▪ "unique" working atmosphere + ▪ level of overall compensation package and the other fringe benefits + ▪ high workplace security + 	add. pension	What other purpose?	./.	5	
Ms11_04	<ul style="list-style-type: none"> ▪ <i>occupational pension scheme?</i> (-) ▪ former working experiences fitted ▪ finding a full-time job 	<ul style="list-style-type: none"> ▪ <i>occupational pension scheme?</i> + ▪ perceived support of employer + 	add. pension	both care of duty and own interest	5	5	0
Ms13_04	<ul style="list-style-type: none"> ▪ <i>occupational pension scheme?</i> - ▪ Company_Z is located in CITY_1 + ▪ family-friendly company + 	<ul style="list-style-type: none"> ▪ <i>occupational pension scheme?</i> + ▪ positive working atmosphere + 	add. pension	1. duty of care 2. own advantages of Company_Z	5	5	0
Ms15_79	<ul style="list-style-type: none"> ▪ <i>occupational pension scheme?</i> - ▪ Company_Z is located in CITY_1 + ▪ promise of quick salary increases + 	<ul style="list-style-type: none"> ▪ <i>occupational pension scheme?</i> + ▪ good working atmosphere + 	add. pension	1. duty of care 2. own advantages of Company_Z	4	5	1

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b) Male interviewees

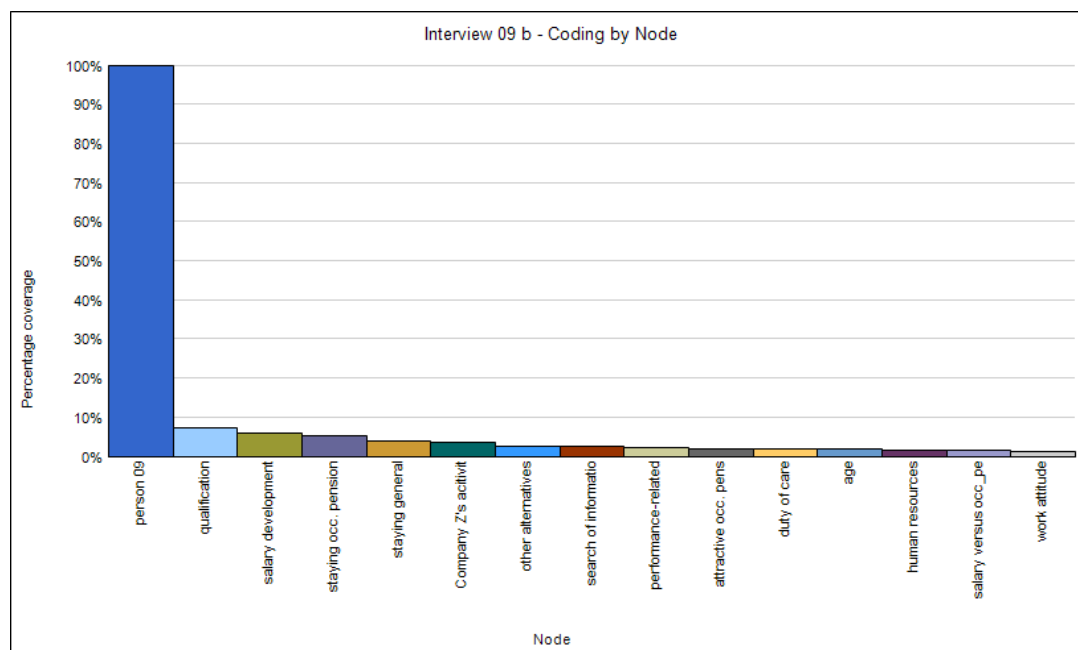
Inter- viewee	Reasons for choosing Company_Z	Reasons for staying	Pay rise vs. add. pension	Pension scheme: duty of care?	Psychological contract		
					pledge	in reality	diff.
Mr2_04	<ul style="list-style-type: none"> ▪ <i>occupational pension scheme?</i> - ▪ Company_Z is located in CITY_1 + 	<ul style="list-style-type: none"> ▪ <i>occupational pension scheme?</i> - ▪ good working atmosphere + ▪ interesting job tasks + 	add. pension	1. pro employee 2. retention/recruitment	4	4	0
Mr5_79	<ul style="list-style-type: none"> ▪ <i>occupational pension scheme?</i> - ▪ Company_Z is located in CITY_1 + ▪ attractive employer + 	<ul style="list-style-type: none"> ▪ <i>occupational pension scheme?</i> (-) 	add. pension	"give and take" or "Win-win" duty of care and own profit of Company_Z	4	5	1
Mr6_04	<ul style="list-style-type: none"> ▪ <i>occupational pension scheme?</i> - 	<ul style="list-style-type: none"> ▪ <i>occupational pension scheme?</i> - ▪ enjoying the tasks + 	add. pension	"goody"	4	4	0
Mr8_04	<ul style="list-style-type: none"> ▪ <i>occupational pension scheme?</i> - ▪ IT department: big enough to learn a lot + ▪ IT equipment: located in CITY_1 + 	<ul style="list-style-type: none"> ▪ <i>occupational pension scheme?</i> (-) 	pay rise	both care of duty and own interest	4	4	0

continued overleaf

Inter- viewee	Reasons for choosing Company_Z	Reasons for staying	Pay rise vs. add. pension	Pension scheme: duty of care?	Psychological contract		
					pledge	in reality	diff.
Mr9_79	<ul style="list-style-type: none"> ▪ <i>occupational pension scheme?</i> - ▪ career opportunities + ▪ creative leeway to fulfill his tasks + 	<ul style="list-style-type: none"> ▪ <i>occupational pension scheme?</i> - (but for special groups +) 	add. pension	1. care of duty 2. retention	5	5	0
Mr12_59	<ul style="list-style-type: none"> ▪ <i>occupational pension scheme?</i> - ▪ insurance branch ▪ big company 	<ul style="list-style-type: none"> ▪ <i>occupational pension scheme?</i> - ▪ perceived support of employer + ▪ personal interests and professional tasks merge into one another + 	add. pension	both care of duty and own interest	3	5	2
Mr14_79	<ul style="list-style-type: none"> ▪ <i>occupational pension scheme?</i> - ▪ Company_Z is located in CITY_1 ▪ salary 	<ul style="list-style-type: none"> ▪ <i>occupational pension scheme?</i> (-) 	?	./.	1	4	3
Mr16_04	<ul style="list-style-type: none"> ▪ <i>occupational pension scheme?</i> - ▪ recommendation by a friend + ▪ workplace security + ▪ good working atmosphere + 	<ul style="list-style-type: none"> ▪ <i>occupational pension scheme?</i> - ▪ workplace security + ▪ regular working hours + ▪ big company, thus better possibilities for personal development + 	add. pension	legal duty 1. care of duty 2. own interest	3	3	0

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Example of a visualisation technique of NVivo



15 most often used codes within the interview transcript of person/interviewee 9

The two most often used codes for the ninth interviewee transcript (Mr9_79) were “qualification” and “salary development”, which indicates Mr9_79’s career orientation and the relevance of a positive salary development for him.

The figure above, for example, visually supports what can be deduced from the brief verbal summary of the story of Mr9_79 (ninth interviewee/person):

	gender	
	male	female
1 : 1_attracting	0	0
2 : attracting general	12	6
3 : attractive employer	6	12
4 : attractive occ. pension	17	15
5 : CITY_1	28	18
6 : 2_staying	0	0
7 : career development	2	1
8 : corporate culture	2	9
9 : family	20	16
10 : job tenure	9	12
11 : other job offers	2	0
12 : positive assessments	6	22
13 : staying general/commitment	20	25
14 : staying occ. pension	24	23
15 : turnover intentions	2	5
16 : work place security	6	4
17 : 3_psychological contract	0	0
18 : psyc fulfillment	2	3
19 : psyc pledge	0	3
20 : psyc relevance ops	0	1
21 : 4_Company_Zs activities	0	0
22 : Company_Zs activities ops	16	13
23 : human resources	3	6
24 : 5_Characterising Company_Z	0	0
25 : duty of care	13	8
26 : feedback	1	0
27 : workload	0	1
28 : 6_Characterising Interviewees	0	0
29 : age	28	26
30 : financial resources	1	2
31 : gender	4	8
32 : managerial responsibility	1	2
33 : qualification	5	2
34 : training	2	8
35 : work attitude	5	6
36 : 7_old age provision	0	0
37 : former experiences old age prov.	3	1
38 : knowledge old age prov	13	11
39 : life insurance	15	24
40 : occupational pension	2	2
41 : communication ops	1	3
42 : comparison	11	10
43 : details	2	4
44 : occ_pension knowledge	0	2
45 : occ_pension trust	0	1
46 : occ_pension versions	2	1
47 : opting out	1	2
48 : other alternatives	8	6
49 : pension gap	2	0
50 : property	1	2
51 : riester	23	27
52 : search of information	5	7
53 : state pension	12	12
54 : 8_salary	0	0
55 : other benefits	2	10
56 : performance-related pay	5	3
57 : salary beginning	0	2
58 : salary comparison	2	6
59 : salary development	1	1
60 : salary versus occ_pension	12	9

Matrix query for all nodes, differentiated by male and female interviewees
 (numbers show how often the codes were used;
 source: own data)